THE POWER OF ALUMNI.
THE POWER OF YOU.

Every alumni gift, regardless of size or designation:

• Propels students into cutting-edge careers in technology, engineering, finance and healthcare
• Fuels faculty research at the frontiers of discovery and innovation
• Boosts Stevens’ ranking and reputation — and the value of a Stevens degree

Stevens is 40,000 alumni strong. You have the power.

Make a gift by June 30: stevens.edu/makeagift
CELEBRATE OUR ACHIEVEMENTS

Recently, while searching for good reasons for our alumni to donate to Stevens, I started to think about what would inspire an alumnus to help Stevens grow. I felt alumni would be more likely to support their alma mater if they were really proud of the institution. So I asked Leah Loscutoff, Stevens’ archivist and special collections librarian, if she has a list of Stevens alumni achievements over the years.

The list from Leah was amazing, much more than I had expected. Not only would an alumnus be very proud of being a graduate of Stevens, but it could also likely double the applicants to attend or work for Stevens — if they ever found out about Stevens.

Here is a very condensed list of alumni achievements:

- Frederick Winslow Taylor, Class of 1883 — the father of scientific management;
- Walter Kidde, Class of 1897 — pioneer in the construction of fire extinguishers;
- Alexander Calder, Class of 1919 — world-renowned artist who created a new art form, mobiles;
- Eugene McDermott, Class of 1919 — co-founder of Texas Instruments;
- Alfred Fielding ’39 — inventor of plastic Bubble Wrap;
- Frederick Reines ’39 — 1995 Nobel Prize winner for physics for the first detection of the neutrino;
- Rowland W. Redington ’46 — developer of CT and MRI devices;
- Leon Febres Cordero ’53 — former president of Ecuador;
- Aaron Cohen M.S. ’58 — former director of the Johnson Space Center;
- Linda Vigilant ’86 — scientist, Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany;
- Laura Barito ’11 — two-sport NCAA national champion (in 50-yard freestyle swimming and the 400-meter hurdles), was awarded the NCAA Woman of the Year.

We come from a rich heritage of inventors, corporate leaders and innovative individuals who made significant contributions to the world community. Recruiting more bright students will enable Stevens’ magic to cultivate more innovators to contribute even more to better this world. We want Stevens to be the top engineering school in the world, with top engineering tools for the students to learn and develop from. — Karl Young ’75

Read more about our prominent alumni achievers on p. 22 and also visit stevens.edu and under the Multimedia Gallery, click on “Our Legacy.”

DISNEY ALUMS THEN AND NOW

Nice articles about the successes of recent grads. (Editor’s Note: See the Fall 2015 issue of The Indicator.) One that caught my eye was the article about Lauren Harpst ’15 and her work with Disney at the Magic Kingdom.

My dad, John Dalessio ’40, worked as a structural engineer for Disney during the construction of EPCOT. This photo (circa 1980-81) shows him on the right at the topping-out ceremony for Spaceship Earth. — John T. Dalessio ’67

This past spring, using the power of hashtags, we leveraged the conversation of Stevens annual events from Admitted Student Weekend to the 9th annual Innovation Expo. Please connect on social media using #StevensAlumni to share your most memorable annual event at Stevens!
The Power of the People
Stevens launches its most ambitious campaign ever, focusing on student success, faculty excellence and a vibrant campus.

A Star is 3D-Printed
Stevens’ 3D-printed robot is on display at the Liberty Science Center.

Beautiful Sounds
With more than 40 years in the music business, there’s still no end in sight for Grammy award winning alumnus John Newton ’71.

Finding His True Loves
Peter Shainin ’66 found his love of sailing — and his wife — at Stevens.

Giving the Gift of Time
Maria Ramos ’00 makes it a priority to be available for her mentees.

Taking Charge
Daniella Kranjac ’99 returns to her entrepreneurial roots.

Stevens Values Around the Globe
Dr. Muhammadou Kah ’92 M.S. ’92 Ph.D. ’99 employs Stevens lessons in his international, higher-education posts.

Home in Houston
Alumni at ExxonMobil build a strong Stevens network in Texas.

Wild Ride in U.S. Security
Gen. Michael V. Hayden spoke as part of the President’s Distinguished Lecture Series.

Striking the Right Note
New CAL dean Kelland Thomas has expertise in music and computer science.

Making Their Way
Several professors receive NSF, Air Force and NAS awards.

Innovation on Display
Project highlights from Innovation Expo 2016.

Watching Washington
Professor Lindsey Cormack analyzes congressional communications and U.S. policy.
Our alumni, students, faculty and staff make Stevens the special place that it is, as we launch the most ambitious fundraising campaign in the university’s history, “The Power of Stevens.” Here are portraits of just some of the many people in our community who will propel Stevens to an even higher level in the future.

PHOTOS: CHRISTOPHER AMARAL

1. Kristopher Alvarez ’16
2. Jasmine and Nick Mestanas ’58 M.S. ’64
3. Kate Abel ’91 M.S. ’93 Ph.D. ’01, Director, Undergraduate Academics, School of Systems and Enterprises
4. Siblings Vicky Velasco ’04, David Velasco ’07, and Monica Velasco Caldwell ’02 M.S. ’02 MBA ’06.
5. Yingying Chen, Professor, Electrical and Computer Engineering
6. Antonio Valdevit Ph.D. ’10, Assistant Professor, Biomedical Engineering, Chemistry & Biological Sciences; Vikki Hazelwood Ph.D. ’07, Director, Biomedical Engineering Program
7. Matrix Arthur Class of 2017
8. Gladys Njoku ’16 and Kevin Ackerle ’16
9. Joe Schneider ’46
10. Dening Lohez M.S. ’97
11. Carlos Alomar, Distinguished Artist-in-Residence
12. Samantha Kleinberg, Assistant Professor, Computer Science
13. President Nariman Farvardin and his wife, Hoveida Farvardin
14. Michael Cahill ’15 M.Eng. ’15, Young Alumni Trustee
15. Thomas Muldowney ’60 MMS ’67, Joseph Kaminski ’60 and John Dalton ’60
16. Rosa and John Hovey ’57
17. Martha Patty Torres ’01
18. David Zimmerman ’90, Executive Director, Office of University Events
19. Marques Brownlee ’15
20. Annmarie Rizzo ’86 M.S. ’92, Trustee, and her niece, Jennifer Rizzo Class of 2017
21. Gregory Prastacos, Dean, School of Business
22. Ryan Little Class of 2019 and Katie Van Orden Class of 2019
23. Rick Roscitt ’73, Trustee
24. Daniel Pallone Class of 2018, his mother, Elizabeth (Farrell) Pallone ’88, and his uncle, Harry Farrell ’93 M.Eng. ’96
25. Nicholas Culver ’01 and Moushmi Culver ’00
26. Whitney Brown Class of 2019
27. Lisa Mengotto Class of 2018, Editor, The Stute
On Saturday, May 7, Stevens announced the largest fundraising campaign in its history — “The Power of Stevens.” The launch event was a spectacular evening that celebrated Stevens’ long and rich history of educating trailblazers, innovators and pioneers in technology, engineering, healthcare and business. It also showcased the tremendous talent, inventiveness and thought leadership of the current Stevens faculty and students who, after 146 years, are still dedicated to solving real-world challenges. The evening marked the start of a new and exciting chapter for Stevens and for our alumni association.

So what does this campaign mean for the more than 40,000 Stevens graduates who make up the vibrant Stevens Alumni Association? First, it’s an opportunity for us to recommit to the university from which we graduated and to its current and future students. We have the power to renew our commitment by offering students valuable internship opportunities, by serving as mentors to the newly minted alumni joining our ranks and by promoting Stevens to prospective students and their families.

The campaign is likewise an opportunity to re-engage with one another. We have the power to deepen our engagement by attending the many activities hosted both on and off campus, by returning for signature events like Homecoming and Alumni Weekend and by communicating with each other virtually through our new Alumni Portal (connect.stevens.edu/alumniportal) — your one-stop-shop for sharing personal and professional information with the alumni community. The portal is located on the newly redesigned Stevens website.

It is also an opportunity for us to reorganize. As I’ve shared before, part of this process is already underway with good work being done by our alumni Ad Hoc Committee to examine the current governing structure of the SAA. Our goal is to create an alumni association for the 21st century — one that will increase our power to shape, support and strengthen the university we love.

Finally, “The Power of Stevens” campaign is an opportunity for alumni to reinvest (or invest for the first time!) in our alma mater. Through our philanthropy we have the power to ensure the success of students, to continue attracting world-class faculty and to create a campus environment that is befitting of a top-tier, student-centric, research university. We also have the power, by making an annual gift, to improve Stevens’ ranking and reputation — and thereby the value of our degrees.

I feel honored and privileged to be serving as the president of the Stevens Alumni Association during this watershed moment in Stevens’ long and distinguished history. I have every confidence that, by recommitting, re-engaging, reorganizing and reinvesting, the SAA can become an even more powerful force in helping Stevens realize its full potential.

Per aspera ad astra,

President, Stevens Alumni Association
jdipompe@stevens.edu
The beginning of my second five-year term as president of Stevens Institute of Technology offers an opportunity to reflect on the remarkable strides we’ve made in such a short time. We are doing things differently at Stevens, and it shows. We practice innovation across all areas of the academic enterprise, from teaching and supporting student learning, to student and faculty research, to interdisciplinary collaborations and partnerships, to the commercialization of innovative products and ideas themselves. Year after year, our graduates go on to secure impressive career and salary outcomes. The quality of our applicants and enrolled students — both at the undergraduate and graduate levels — has never been higher, and over the last five years the demand for a Stevens education has surged 106 percent among undergraduate applicants and 84 percent for applicants to the graduate school. We are a community re-energized and are soaring toward heights greater than the university has ever seen before.

Each and every one of us should take great pride in the university’s steep upward trajectory. It is the sum of our collective efforts, the strength of our will to see our university ascend and our shared pride and perseverance that has powered Stevens forward. For all of the astounding accomplishments we have made at Stevens this year, I credit our power.

When the Stevens 2015 Solar Decathlon team developed the idea for the SU+RE HOUSE, their determination to protect shore communities from future storm damage powered them to a first-place victory. When the Men’s Volleyball team entered the final round of the NCAA Division III Championships, their diligence, teamwork and Stevens pride powered them all the way to Stevens’ first-ever team national championship title. When Anthony Grasso, Class of 2017, and his volunteer EMT colleagues received an emergency call during the blizzard of 2016 to aid a mother in labor, their sense of duty for public service powered them to brave the elements and deliver a healthy baby girl. When our researchers are recognized by the National Science Foundation, the National Academy of Inventors and the Air Force, they are powered by their commitment to advance the frontiers of science and technology. Our outstanding rankings among elite technical institutions for ROI, career placement, and our innovative educational programs are powered by our students, faculty, alumni and administration who strive for nothing short of excellence.

“The Power of Stevens,” the name of the most ambitious fundraising campaign in Stevens’ history, will require the engagement and participation of each and every member of the Stevens community to continue to power the university forward. You will bring about a historic new era for Stevens. This campaign is an investment in our students, in our infrastructure, in high-impact research, in upholding the Stevens legacy and in shaping our university’s future.

With your help, we will become the powerhouse that Stevens was meant to be.

Per aspera ad astra,

Nariman Farvardin
President, Stevens Institute of Technology
president@stevens.edu
201-216-5213
ASSOCIATE DEAN LAWRENCE CHOSEN FOR INVENTORS HALL OF FAME

Dr. Victor Lawrence, Stevens Associate Dean and Batchelor Chair Professor of Electrical Engineering, was recently inducted into the National Inventors Hall of Fame. The hall of fame recognizes scientific achievement by U.S. patent holders who have made a meaningful impact on the world. Lawrence was honored for his invention of signal processing in telecommunications, which improved transmission for the modern internet, made high-speed connections more universally available and helped to spur the growth of the internet worldwide. Aside from his responsibilities at Stevens, Lawrence continues his effort to bring internet access to developing countries and fiber optic connectivity to Africa. The formal induction ceremony took place on May 5 at the Smithsonian American Art Museum and the National Portrait Gallery in Washington, D.C.

SES DEAN TAKES NEW POST

Longtime dean and professor in the Schaefer School of Engineering and Science Michael Bruno left Stevens to become vice chancellor of research at the University of Hawaii-Manoa this past winter. Associate Dean Keith Sheppard is serving as interim dean until a search is completed and a new dean appointed. Bruno came to Stevens in 1989 as an associate professor and director of the Davidson Laboratory. He was appointed dean in 2006. Under Bruno’s leadership, two new National Centers of Excellence were awarded to Stevens: the Atlantic Center for Innovative Design and Control of Small Ships and the Maritime Security Center.

STEVENS RECEIVED A STARS (SUSTAINABILITY TRACKING AND RATING SYSTEM) SILVER RANKING FROM THE ASSOCIATION FOR THE ADVANCEMENT OF SUSTAINABILITY IN HIGHER EDUCATION (AASHE) THIS PAST DECEMBER. THE NEARLY 1,000-MEMBER GROUP OF UNIVERSITIES STRIVES FOR ENVIRONMENTALLY FRIENDLY CAMPUS FACILITIES, SOCIAL RESPONSIBILITY AND EQUITABLE WORK POLICIES AND WORK ENVIRONMENTS.

TWO NCAA CHAMPS FOR TRACK & FIELD

Two members of the women’s indoor track and field team are national champions — both grabbing their second national titles in their extraordinary Stevens careers. Amy Regan, above left, and Gladys Njoku were both crowned national champs at the 2016 NCAA Division III Indoor Championships in March in Grinnell, Iowa. Regan won the 3,000-meter and 5,000-meter races, and Njoku became the national high jump champion for the second year in a row. Regan was also the NCAA Division III Cross Country national champion in 2014.

SUSTAINABILITY STAR

Stevens received a STARS (Sustainability Tracking and Rating System) Silver ranking from the Association for the Advancement of Sustainability in Higher Education (AASHE) this past December. The nearly 1,000-member group of universities strives for environmentally friendly campus facilities, social responsibility and equitable work policies and work environments.

STEVENS LAUNCHES NEW WEBSITE

In mid-March, Stevens launched a newly designed website in an ongoing effort to engage prospective students and other important audiences, including alumni. Key improvements include a modern design and streamlined information architecture for better, more effective navigation. The new design is mobile responsive, spanning across all platforms and devices to give users unprecedented access to Stevens 24/7. Another highlight is the new Alumni Portal, which lets Stevens alumni access information they need—from upcoming events to the Alumni Job Board to the Alumni Directory — in one location.
SURE HOUSE IN SPOTLIGHT

Stevens’ SURE HOUSE student team continued to receive recognition this past winter, after its victory at the U.S. Department of Energy Solar Decathlon in October. The solar-powered, storm-resilient home was featured among the “8 Tech Breakthroughs of 2015 That Could Help Power the World” in the Dec. 29, 2015, issue of National Geographic. And in January, SURE HOUSE team members A.J. Elliott and Chris Hamm spoke at a workshop in Dubai, United Arab Emirates, for the new Solar Decathlon Middle East. Dubai energy officials, U.S. Department of Energy officials and university leaders from around the world also attended.

STUDENT HELPS DELIVER BLIZZARD BABY

On Jan. 23, in the midst of a blizzard that dropped 26 inches of snow on Hoboken, Anthony Grasso, Class of 2017, a member of the Hoboken Volunteer Ambulance Corps, helped bring a child into the world. After receiving a 911 call around 4:40 p.m., Grasso, along with his two team members, carefully navigated the snowy streets and arrived at an apartment where the child’s mother had already begun labor. Less than 15 minutes later, with the help of two Jersey City paramedics who arrived shortly after Grasso’s team, a healthy baby girl was born. “My boss, who was a Hoboken fire captain and is now Hoboken EMS president and coordinator of the city’s Office of Emergency Management, was literally in tears,” Grasso said. “He was very proud of us.”

YAO RECEIVES NATIONAL HONORS

Stevens professor Yu-Dong Yao, director of the university’s Department of Electrical and Computer Engineering, has been elected a Fellow of the National Academy of Inventors. His research focuses in areas including wireless and satellite networks and communications; electronic warfare; beamforming; directed energy technologies; CDMA radio link protocols; and networks. Yao holds 13 U.S. patents and is an advisor to student research at both the graduate and undergraduate levels.

SURE HOUSE

STEVENS, NOKIA BELL LABS COLLABORATE

Stevens and NOKIA Bell Labs have partnered for an experiment in art and technology, presented at the centennial birthday celebration this spring of Bell Labs luminary Claude Shannon. The Bell Labs Shannon Conference on the Future of the Information Age, held April 28-29 at NOKIA Bell Labs in Murray Hill, New Jersey, featured the premier performance of the Human Digital Orchestra™, a fusion of human movement with media and art. Robert Harari (above), industry associate professor for the Music and Technology Department at Stevens, is the artistic director-producer for the Human Digital Orchestra™. The performance, called the “Shannon Effect,” is named for Shannon, who is known as the father of information theory. The two-day conference honored such visionaries as Eric Schmidt, executive chairman, Alphabet Inc. (Google’s parent company), and Bob Metcalf, co-inventor of the Ethernet.
T he America’s Cup racing series visited the Hudson River May 7-8, with a special twist: Competing yachts actually sailed north on the race course to within a nautical mile or two of the Stevens campus, perhaps in a nod to the Stevens family members who created (and won) the original America’s Cup challenge in 1851.

Stevens continued its long association with the world’s foremost yacht race in this May’s two-day race series, which was a preliminary event leading up to the 35th America’s Cup to be held in 2017 in Bermuda. (See box to learn more about the Stevens family’s America’s Cup legacy.)

Stevens professor Alan Blumberg and his Davidson Laboratory colleagues created sophisticated weather, water-level and current-flow forecasts for the race area each morning of the Cup racing, using Stevens’ dedicated supercomputer and proprietary storm-surge advisory system.

The forecasts were provided to competitors and updated four times daily, noted Blumberg.

“The opportunity to forecast for the America’s Cup racing is a special recognition of the quality research at Stevens,” he said.

Stevens has also helped design a number of craft used in America’s Cup races.

The winner of the 1937 America’s Cup, for instance — Harold Vanderbilt’s Ranger — was tested and developed in the Davidson Lab’s historic towing tank using scale-model experiments to study the craft’s behavior in various wind and wave conditions. The preparation and research worked: Ranger defeated its British competitor 4-0.

Many more America’s Cup and other grand-prix racing yacht models were subsequently tested in the unique Stevens tank as well, and information derived from those studies has since contributed greatly to our present-day understanding of sailboat hydromechanics.

Stevens research professor Len Imas, a member of Stevens’ ocean engineering faculty, has also directly participated in four America’s Cups to date, providing expertise for several international teams. Imas has contributed research to Oracle Team USA’s current Cup preparations, and also previously worked with Emirates Team New Zealand’s runner-up entry during the 34th Cup.

Imas’ specialty — computational hydrodynamics — helps designers analyze and develop optimal shapes for yacht hulls and appendages by performing computer experiments that simulate various flow and sailing conditions and predict fluid loads acting on the test shapes. — Paul Karr

To learn more about Stevens’ legacy of marine forecasting and naval and marine architecture, engineering and design, visit stevens.edu/davidson.
COMPETITORS SAILED NEAR THE CAMPUS WHOSE FOUNDERS CREATED THE FAMED YACHT RACE

CREATING THE CUP

The America’s Cup was founded by New York Yacht Club founder and commodore John Cox Stevens. With the assistance of his engineer brother Edwin, who would later found Stevens with a generous bequest, John Cox Stevens built the yacht America in Hoboken and sailed it to England in 1851, issuing a challenge to the British navy.

The Stevens brothers handily defeated the Royal Yacht Squadron in a race around the Isle of Wight — an attendant to Queen Victoria famously stated to her “there is no second” as he watched the American yacht pulling away to victory — receiving an elegant silver cup as a trophy. The Queen set foot on the yacht the next day to congratulate the victorious Americans and present the cup, now the oldest trophy in international sports.

Later, the New York Yacht Club created a permanent challenge to foreign yacht clubs — the international competition known today as the America’s Cup, named for the schooner that first won it and a signature pursuit of engineering and design excellence. — Paul Karr
THE POWER OF HISTORIC CAMPAIGN FOR STEVENS
Ask generations of alumni what comes to mind when they think of Stevens, and you will likely hear these words, each reflective of Castle Point at a certain moment in time.

But if they contemplate more deeply, they will remember people: long-ago classmates, lifelong friends, professors, mentors, fraternity brothers, teammates, first loves.

It is the people who make Stevens the special place that it is. And now the university looks to the power that is our community to propel us into our next era.

In 2013, Stevens began the “quiet phase” — the non-public period — in the most ambitious fundraising campaign in the university’s 146-year history. “The Power of Stevens” launched publicly this May, with a spectacular kick-off on the banks of the Hudson River. The goal is to raise $150 million by December 2018 that will transform the university. The campaign has at its core three key priorities: student success, faculty excellence and a vibrant campus. It has been designed specifically to support the goals of the university's strategic plan — The Future. Ours to Create. — to grow in size, prestige and impact, to help solve the world’s complex problems. And it is aspirational.

“The campaign is a way to show the next generation that giving back is something noble, is something that is in our culture,” says Stevens Provost George Korfiatis. “Philanthropy has contributed to making the American educational system the greatest in the world, the envy of the world.”

But this campaign is not just about raising money and new buildings. It’s the story of people — of students, faculty, campus leaders, friends and, of course, alumni — and the direct impact the campaign will have on their ability to get a life-changing education, serve students to the highest degree, do meaningful and important research and make a much-needed positive difference in the world.

There is an incredible power at Stevens. This power comes from one essential source: the people of Stevens who come together to realize its great potential. The story of this campaign is, simply, the power of us.

Additional members of the Stevens community, adding to The Power of Us: (opposite page, second row, far right) First in Class/2016 Valedictorians Gabriella Green, Alex Sabella and Matt Heinrich; and (opposite page, fourth row, far right) Dakota Wixom and Ronak Shah, both Class of 2018. For all other identifications, see page 3.
AS VICE PROVOST FOR ACADEMICS
Constantin Chassapis sees it, a successful student is one who accomplishes his or her own personal goals. And, he says, a successful university is one that allows its students to meet — or exceed — those goals, whatever they may be.

“This fits into our plan to be student-centric — we have a diverse group of students and each has different goals,” he says. “Traditionally, schools focused on students having difficulty, but we have an obligation to pay attention to high-achieving students, too. We must have a net to catch those who may have tripped, but we need to challenge all of our students.”

Many initiatives that promote the Stevens campaign priority of student success are wholly or partially funded by gifts. From scholarships and honors programs to tutoring services and competition prizes, donor gifts are used to help attract top students and keep them successful while on campus.

“We owe it to all of our students to keep them interested,” Chassapis says. “We owe it to them to create an environment where they can thrive and achieve more than they ever thought possible.”

FORMULA FOR SUCCESS
STUDENT-CENTRIC APPROACH CREATES WORLD OF OPPORTUNITY

PINNACLE PROGRAM ATTRACTS TOP STUDENTS
It was on Admitted Student Day last year when Katie Van Orden first knew that Stevens would be her college of choice.

“I felt so special that day,” she says, recalling the festivities and conversations with professors and current students. “Everyone had so many great things to say and it stuck out as a place where I could really shine and excel.”

Van Orden, a biomedical engineering major who just finished her first year of studies, graduated high school with a weighted 4.4 GPA and is part of the inaugural class of the Pinnacle Scholars Program at Stevens, designed to attract exceptional students. The program is just one of many of Stevens’ campaign priorities that target student success.

“There is no substitute for program that stands for something, and our program is that of a world of opportunity for all students,” Weston says.

“If you’ve got a plan, you ought to take it seriously and have programs in place to deliver. And my view is that one piece of the program of the overall plan (for Stevens) is Pinnacle. It’s not a be-all and end-all, but it particularly is aimed, as best I understand, at the most promising students, and I’m glad to help them.”

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“Despite a rigorous class and extracurricular schedule, I get involved because I want to spread pride and joy on this campus.”
— Kris Alvarez ’16
The President’s Leadership Circle, taught by President Nariman Farvardin, meets with Josh Weston, former CEO and chairman of ADP, in April.

For a select group of the already-select Pinnacle Scholars, an added benefit was the opportunity to participate in the President’s Leadership Circle, a seminar course on leadership taught by Stevens President Nariman Farvardin.

“In this two-semester seminar course, I had the opportunity to interact with 21 smart, serious, enthusiastic and full-of-energy students,” he says. “We focused our discussions on two broad topics: (i) what it takes to be an effective leader, and (ii) technological advancements and their impact on society.”

To determine which students are invited to join the course, Jackie Williams, dean of undergraduate admissions, says that all aspects of the student’s application must be considered.

“These are some of the highest-achieving students within the admitted student pool, in all aspects. We consider GPA, coursework and test scores, as well as what the student does outside the classroom — whether it’s robotics or volunteer work or sports — and we look for a demonstrated leadership component in those areas.”

Learning from Farvardin and the distinguished guest lecturers who were invited to speak to the class throughout the year was not something the students took lightly. Rather, says Katie Van Orden, a student in the seminar, they all recognize the significance of the experience.

“In the few first classes, everyone was super intimidated as the first students to take the class with him (Farvardin),” she says. “But hearing his insights, and that of all the prestigious speakers, has been such a great experience. And now we know the president and he asks us how we’re doing and we talk with him. It’s just amazing to have that opportunity.”

For his part, Farvardin is also appreciative of the experience.

“This teaching experience gave me the opportunity to get one step closer to our students, hear directly from them about their experiences during the freshman year, impart upon them some of my knowledge, and challenge them with some fairly significant questions and assignments,” he says. “My classroom interaction with the President’s Leadership Circle was one of the most gratifying and inspiring experiences I have had at Stevens. I will be able to better serve the students because of this experience and look forward to teaching this seminar next year again.”

LEARNING FROM A LEADER

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— Rebecca Markley
students through more than forty classes a semester. The tutors are students themselves (each having met a number of criteria that qualifies them to tutor in particular subjects), which can make it easier for a struggling student to seek help.

“Without the Walk-In Tutoring Center, they might not get help at all because they wouldn’t go to their professor or TA (teaching assistant), or they might just try to figure it out on their own,” Kamal Tamna, assistant dean for undergraduate academics and director of the Academic Support Center, says. “But they have a place where they can go and feel comfortable asking for help.”

And, because it’s open six days a week and until 11 p.m. on most nights, it has become a spot that students seek out to simply enhance study habits.

“Because it’s in the library, it’s in a natural place to go for tutoring and having a dedicated space that’s accessible late at night when a lot of students tend to homework is also a strength,” Tamna says. “Even students who aren’t struggling go there for help, so if they have a quick question about something, they can confirm that they’re understanding it correctly.”

The tutoring center was made possible in large part by a gift from Ayesha and Dr. Sandeep Mathrani ’83 MMS ’83 M.Eng. ’86 H.Eng. ’11.

EMBRACING ENTREPRENEURSHIP

Another important aspect of Stevens’ student success initiatives is ensuring that students are prepared to succeed in the real world. As part of the annual Innovation Expo, two elevator pitch competitions — the Business Products Pitch Competition, where students deliver brief pitches designed to raise funding for their ventures, and the Business Services Pitch Competition, where students deliver short presentations designed to persuade potential clients to select their services over competitors’ offerings — expose students to the realities of selling their ideas to potential backers. And this year, a gift from the Ansary Foundation gave the top three winners from both competitions a taste of success.

Entrepreneurship is a rich part of his family’s history, says Jeff Ansary, and his family’s foundation sees great value in Stevens’ programs in innovation and entrepreneurship that promote these areas of student learning and research.

“The taking of an idea and commercializing it — it’s great to see a university that embraces that,” Ansary says. “But oftentimes, universities don’t have enough funding to continually support students’ entrepreneurial efforts, so funding to ensure that important projects continue and thrive is important.”

Students also find the value of these opportunities, not only in the form of prize money, but also in the experience that will help them long after their days at Castle Point.

“This process as a whole — all the preparation and public speaking, and the actual competition — has prepared me to start a business or develop my own project,” says Alexandra Haracz ’16, a member of team WHISPER, which captured first place in this year’s Business Products Pitch Competition for their pitch for a wireless bridge monitoring system.

“At left, Brad and Jeff Ansary, whose family foundation sponsored the prizes for the Business Products Pitch Competition and the Business Services Pitch Competition at this year’s Innovation Expo. At right is Team WHISPER, winner of the $5,000 first-place prize for the Business Products Pitch Competition.
CLASS SCHOLARSHIP MAKES ALL THE DIFFERENCE

Michael Cahill ’15 M.Eng. ’15, a technology consultant with Protiviti and a young alumni trustee, doesn’t mince words when it comes to financial aid.

“Had I not received scholarships, I wouldn’t have been able to be here,” he says, referring to Stevens. “I remember my dad looking at my financial aid package and saying that my parents couldn’t afford to send me. But the next day, I got notice in the mail that I had received the DeBaun Performing Arts Scholarship, and I was getting closer to where I needed to be. Then I got another scholarship from Stevens, which made it so I could afford to go here.”

Instrumental in the establishment of the Class of 1989 Term Scholarship, which Cahill received in the 2014–2015 academic year, Dawn Madak ’89, a former young alumni trustee herself, knows his story all too well.

“Scholarship is what made it possible for me to go to Stevens,” she says. “Generally, kids who come from humble beginnings are driven because they have to be. For them, like me, an education is freedom. It’s the freedom to make choices that you wouldn’t have otherwise.”

Madak says that most of the members on the Class of 1989 25th reunion committee, which decided that their class gift would be a scholarship, had received some financial aid during their time at Stevens. She also says that students like Cahill make her and other donors happy to contribute.

“I’m so impressed with his credentials and accomplishments. I’m proud he was one of our choices,” she says.

Cahill, for his part, made the most of his scholarship and his time on campus. He was active in Greek life as a brother of Sigma Nu; performed in and produced several Stevens Dramatic Society productions; co-founded Quackapella, a student-run a cappella group; and was instrumental in bringing Student Safe Zone Training, a program developed to train students to be allies of the LGBTQ community, to campus.

And through his appointment to the board, a post he’ll hold until 2017, Cahill is still taking advantage of the opportunities afforded to him.

“It’s a great learning experience,” he says. “I’m there to offer opinions and a fresh perspective but I also listen a lot. I just try to be a sponge, to take in what I can.” — Rebecca Markley

THE POWER OF STEVENS: BY THE NUMBERS

CAMPAIGN PRIORITIES

- FACULTY EXCELLENCE GOAL: $34M
- STUDENT SUCCESS GOAL: $68M
- VIBRANT CAMPUS GOAL: $48M

PROGRESS TOWARD GOAL

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SPRING 2016 15
FACULTY EXCELLENCE

THE POWER OF STEVENS
OUR CAMPAIGN
OUR IMPACT.

SITTING AT THE TOP OF THEIR GAME
FACULTY CHAIRS ATTRACT BEST OF THE BEST

AT STEVENS, Professor Alan Blumberg simply has freedom — to teach what he’s passionate about, to risk, to take his research to places he never imagined.

When pilot “Sully” Sullenberger landed U.S. Airways Flight 1549 in the Hudson River, Blumberg and his Stevens colleagues provided rescue personnel with information on water currents and temperatures, contributing to the rescue of all 155 passengers and crew.

When Superstorm Sandy struck, Blumberg and his ocean engineering colleagues uploaded vital storm surge forecasting to Stevens’ webpages daily, drawing droves of people. “Our work saved lives and protected property,” he says.

The Port Authority of New York & New Jersey has awarded Stevens — with Blumberg and colleagues playing a key role — a five-year, $6.6 million contract to develop new technology for accurate forecasts of flooding from rain and storm surges, building resilience for the next big storm.

Blumberg’s position as the George Meade Bond Chair of Ocean Engineering has helped to make all of these contributions possible, he says.

The offer of this chair drew him from Princeton to Castle Point back in 2002. With the freedom to teach and do research in areas he’s passionate about, he and his colleagues developed a new discipline, urban oceanography, studying how water affects the urban coast and how the urban coast affects the water. The chair gave him the funds to travel to UNESCO in Paris, where he studied urban coastal resilience with worldwide experts and brought that knowledge home.

With his chair, “you don’t have to go down the same path. You can be creative, entrepreneurial,” Blumberg says.

“It raises everyone up. It brings enthusiasm. It brings excitement to the place.”

Gifts of faculty chairs — funds specifically allocated for the most outstanding faculty, to give them the freedom to do innovative research and teaching — are a vital part of the Stevens campaign priority of promoting faculty excellence.

In Dave Farber’s mind, “the most productive thing that you can do is endow a chair.” The Class of ’56 alumnus and internet

“’First you learn, then you earn, and then you return’... We’ve all been called by Stevens, in our own way, to give our very best to the school. [The campaign is] a challenge to us to create that environment here at Stevens, and to create all that Stevens aspires to be.” — John Dearborn ’80
NEW FACULTY CHAIR LEADS COMPUTER SCIENCE DEPT.

From California to Baltimore to Europe, Giuseppe Ateniese has gathered many impressive titles, building a career as an internationally renowned scholar in information security.

But this Italian-born computer scientist’s favorite title is his current: David and GG Farber Endowed Chair in Computer Science at Stevens.

“Professor Farber is very well known in Computer Science — he is considered the ‘Grandfather of the Internet,’” Ateniese says. “Having his name in my title was amazing to me. It’s such an honor.”

Ateniese is the new director of Stevens’ Department of Computer Science and also occupies the newest faculty chair at Stevens, established by Stevens Trustee Emeritus Dave Farber ’56 and his late wife, Gloria. He joined Stevens this past January, coming from Sapienza-University of Rome and Johns Hopkins University, where he was an associate professor and cofounded the JHU Information Security Institute (JHUISI).

Ateniese’s new title carries the name of Farber, who himself is the Distinguished Career Professor of Computer Science and Public Policy at the School of Computer Science at Carnegie Mellon University, and an internet pioneer. Ateniese brings credentials that so many of his colleagues say help him live up to his new job title.

They cite his deep and significant contributions in computer science, with his research focuses in applied cryptography and network security. With his seminal paper on cloud security, “Provable Data Possession at Untrusted Sources,” and more than 10,000 Google Scholar Citations for his research, Stevens has found “a world-class researcher,” Farber says.

“We were looking for notable people with great futures to fit that chair. This guy was good,” Farber says. “Having a leader who can help steer young faculty especially is important,” Farber adds. “There’s huge potential here.”

“Recruiting Dr. Ateniese as Farber Chair Professor and Department Director of Computer Science is a significant accomplishment for Stevens,” says Provost George Korfiatis. “In addition to being a world-renowned researcher and scholar in cybersecurity, Giuseppe is a strategic thinker, a visionary and a leader. Exactly the qualities needed to propel our Computer Science Department to new heights.”

The faculty chair that supports his research and allows him to create a research program — this attracted him to Stevens. So did New York City, “the center of the world,” he says.

Ateniese has developed tools to check the integrity of data stored in the cloud and his current research agenda includes solving problems that affect national security and that are relevant to financial institutions.

Ateniese praises the department for its quality faculty, and its research strengths in cybersecurity, programming languages and data science (broadly defined). But he wants to do more.

“We really have to go after extremely difficult problems and bring in large grants,” he says. The overriding aim of his strategic plan: rising in the rankings.

Stevens is in the top 10 universities for a bachelor’s degree in Computer Science according to USA Today College (2016), but Ateniese wants to build robust graduate and research programs. (See: http://college.usatoday.com/2016/04/08/the-top-10-computer-science-schools-in-the-u-s/)

Now at 15 full-time department faculty, he hopes to double that size in the future. He also wants to attract more Ph.D. students.

Ateniese plans for more collaboration with Stevens’ School of Business and with the School of Systems and Enterprises, as well as financial institutions across the river. Competing against many top schools in the New York City area for high-quality faculty and Ph.D. students is difficult, but Ateniese sees a Stevens advantage in its small size.

“It is possible to change things and tailor them to our strategic plan,” he says. “I feel that if you have good ideas and a tenable goal, it can happen here.”

❖ — Beth Kissinger

The ability that a chair gives him to make good ideas happen drew him to Stevens, Ateniese says. He predicts that simply his chair name — the David and GG Farber Endowed Chair in Computer Science — will also help attract more outstanding faculty that he’s now seeking.

Trustee Rick Roscitt ’73 also sees faculty chairs as essential to Stevens’ pursuit of increased excellence in teaching and research. He recently chose to endow a chair in the School of Business, allowing for the hiring of an outstanding professor to lead educational, research and outreach activities focused on ethics-related issues for Stevens students and industry.

“Faculty chairs bring distinction and prestige to those who hold them, and provide Stevens with the capability to recruit the very best from around the nation and throughout the world”, he says.

Blumberg marvels at the legacy of George Meade Bond, Class of 1880, who endowed his chair in ocean engineering a century ago.

“The guy did this 100 years ago, and we’re still talking about it,” Blumberg says. “Talk about impact.”

❖ — Beth Kissinger
One major challenge is the lack of research space, one location where various researchers have adequate space not only to collaborate but also to expand these important areas of discovery. Right now, researchers are scattered throughout campus in labs that usually accommodate up to six people.

So the Mary Jane and Frank Semcer Center of Healthcare Innovation — a gift of the Class of '65 Stevens trustee and his wife — will make an immediate impact.

Set to open in the Academic Gateway — the state-of-the-art building expected to open in the 2018-19 academic year with much-needed classroom space, labs, office space and the Department of Computer Science — the Semcer Center will mean greater collaboration among researchers and expansion of Stevens’ tissue engineering and biological sciences program, the center’s director says.

Inside Gateway, the Semcer Center will embrace an open-air concept, says Dr. Peter Tolias, with one lab accommodating up to 25 researchers, allowing for greater collaboration under one roof.

“Modern, high-quality laboratory space is always required in any quality program,” Tolias says. “This lab gives Stevens the capabilities to have a modern, updated space where multidisciplinary projects can run, with undergraduate, graduate and post-doc students all in one setting.”

Tolias and his researchers represent one example of Stevens community members and initiatives benefitting from the drive to create and expand campus facilities. This focus of the university’s campaign strives to create a vibrant campus that supports the high-impact research and experiences that enable Stevens students, faculty and staff to thrive and innovate.

MISSION ACCOMPLISHED

Since the quiet phase of the campaign began, the university has completed the Ruesterholz Admissions Center, the 5,700-square-foot renovated residence (formerly known as Colonial House) that became home to the undergraduate admissions staff and a welcoming meeting place for prospective undergraduate students since opening in October 2014. The center is named in honor of its benefactors, Kevin ‘83 and Stevens Board of Trustees Chairman Virginia Ruesterholz ‘83.

The Center — with its breathtaking views of Manhattan and the Hudson River, its traditional Colonial-style exterior and modern interior that includes intimate meeting rooms, interactive technology and engaging displays on Stevens’ most elite alumni — is helping to bring more visitors to campus, campus officials say.

Back in 2012, Cathy and Sean Hanlon ’80...
funded and opened one high-tech finance lab — the Hanlon Financial Systems Lab — that has played a significant role in student recruitment, and in Stevens’ capabilities in finance research. This fall, a second high-tech finance lab, which will focus more on data visualization technologies, will open.

Sean Hanlon speaks of so many reasons that he and his wife, Cathy, have been major benefactors of Stevens, from the “extraordinary” education that Stevens gave him and that he wants for others, to supporting research and education in the field of finance — a field that has benefitted them.

“The stewardship of our gifts is wonderful,” Hanlon says. “We receive thank-you letters, updated annual reports on our invested capital in the endowment and updated general reports on the use of the proceeds, telling us about the direct impact of the gifts. We are very fond, appreciative and supportive of all that Stevens does.”

Another significant project funded through the campaign is the ABS/Davidson Laboratory expansion, a project currently underway that is funded by the American Bureau of Shipping. The renovation will replace the towing basin with student senior design spaces, with added laboratory space and offices. An additional project planned and funded by the campaign includes the renovation of the Lore-El Center, a female student residence. (See page 20.)

GATEWAY ON THE HORIZON

The Academic Gateway is, by far, the current facilities project that will have the most widespread impact. The forthcoming pair of four-story brick buildings, connected by a glass skybridge, will be located at Sixth and Hudson streets and offer a new entry point to campus. The building will feature: 11 high-tech classrooms; four advanced labs; plus faculty offices.

The Academic Gateway will stand as an example of Stevens’ commitment to research and teaching; as such, the university administration expects it to help attract even more high-caliber faculty and students seeking modern academic facilities. Giuseppe Atieniese, the new faculty chair and director of the Department of Computer Science, agrees. It was one factor that helped draw him to Stevens.

“It’s a message: Computer science counts and we’re giving you the best space on campus to allow you to grow,” Atieniese says.

Faculty are also excited for the positive impact that the Academic Gateway will have on their students’ educational experience.

Professor Vikki Hazelwood Ph.D. ’07 has seen her biomedical engineering students get excellent results over the years, even as they’ve worked in traditional and modest facilities, she says.

“The new environment will expose them to tools and resources that they will soon see again as they enter their careers,” she says. “It will also provide a meeting ground for multiple disciplines to work alongside or together, which is certain to prove to be fertile ground for innovation.”

The Academic Gateway received a major boost when entrepreneurs Susan and Greg Gianforte ’83 made a gift of $10 million toward the project in 2012, during the early days of the quiet phase of the campaign, setting a fundraising record.

“My wife and I have been incredibly blessed with business success and family,” Greg Gian-
forte said at the time. “We feel an obligation to give back.”

“Stevens, over the course of its history, has poured an incredible foundation,” Gianforte said. “There’s an opportunity now to build to the next level.”

Semcer is another major donor to the creation of first-class facilities on campus, donating $5 million to support the center named in his honor. He and his wife, Mary Jane, are longtime supporters of Stevens whose generosity has touched so many aspects of campus life, from the center to student scholarships to historic preservation efforts. He says that he’s inspired by the students and faculty he meets.

“I feel the energy of these young engineers and the faculty,” he says. “When I’m on campus, the mood is positive and the outlook is great.”

❖ — Beth Kissinger

A PLACE OF THEIR OWN

ALUMNA STEPS UP TO SUPPORT LORE-EL CENTER

A pioneer of one of Stevens’ earlier classes of women is helping another pioneer of women’s programming thrive in the future.

The Lore-El Center for Women, the gracious Victorian-style home along Castle Point Terrace that is home to 16 undergraduate women, will soon undergo a renovation to improve and beautify the building and make it compliant with the Americans with Disabilities Act. And it has found a benefactor in Lisa Mascolo ’82, a Stevens trustee who is managing director with IBM GBS U.S. Federal.

Lore-El is a living and learning community for undergraduate women and offers a supportive environment to its residents as well as programming geared toward women in STEM, but open to all. Past programs have included career talks by alumnae, networking events and other programs that focus on careers as well as personal growth.

The Lore-El Center was dedicated on Jan. 13, 1999, in honor of local businesswoman Lore E. Feiler, and wasn’t an option when Mascolo attended Stevens with about 15 other women of the Class of ’82. With more than 250 men in their class, these women were certainly like pioneers, Mascolo says, with a debt to those Stevens women who came before them.

Women now make up about 30 percent of the student population, and the university is doing a good job of attracting women who have made the decision that they want to enter a STEM field, Mascolo says. The challenge for Stevens and for so many schools is to reach younger women, those in middle school, to nurture their interest in engineering, math and science, she says.

Supporting the Lore-El Center embraces many things that Mascolo cares deeply about.

“I’m passionate about the value of education and I’m passionate about the value of diversity at the head table,” she says. “I believe strongly that the more women we have in industry and public service who understand the value of matrixing technology and business to solve the world’s most complex problems, the better off the world will be.”

The project will include new furniture for the living room and dining room; a new ramp; a new outdoor terrace in the backyard; landscaping; and other related work.

“The Lore-El Center is about supporting women at Stevens, helping them to take best advantage of a Stevens education,” Mascolo says, and giving them the tools they need to make a difference in the world.❖ — Alan Skontra

MORE ON ‘THE POWER OF STEVENS’

To learn more about “The Power of Stevens: Our Campaign, Our Impact” — the university’s $150 million campaign; to view videos and photos, including exciting highlights from the May 7 campaign launch event at Stevens; to read stories about the extraordinary people who are “The Power of Stevens” and to participate in this historic campaign, please visit: power.stevens.edu.
Q: WHY IS NOW THE RIGHT TIME FOR STEVENS TO LAUNCH A CAMPAIGN?

LB: For a school to launch a successful campaign, you have to have a few things that are going in the right direction. First, the school needs to be in a strong position. It needs to be improving from a number of standpoints, including incoming student applications, faculty research, student achievements or enrollment. We hired a new president almost five years ago now, and he’s done a great job of changing the trajectory of everything that’s gone on in the school. He’s done a great job of bringing a lot of alumni back into the fold. We’ve attracted many new faculty members to campus and, most importantly, our reputation, from almost every outside organization that rates schools, has gone up. Second, I think that you need the right external environment. The markets look better. So it’s an area where we can go out and now ask people to make that contribution. And third, we’re in a situation where people can understand the vision of where we want to go, with a well-thought-out strategic plan that has been under implementation for about four years, and showing results. People can see new buildings being proposed, new activities coming on campus, and they can now see that we have a good foundation, and we have a great future in front of us.

Q: THE GOAL OF THIS CAMPAIGN IS TO RAISE $150 MILLION. CAN YOU TELL US WHAT ACHIEVING THIS GOAL WILL MEAN FOR STEVENS?

NF: This campaign is essentially targeting three broad areas that, in my opinion, form the foundation for any outstanding institution of higher education. 1. Support to provide access for talented students in the form of scholarships, fellowships and a variety of student aid; 2. Support to enable the university to recruit, nurture and retain the most talented faculty members that you could find anywhere on the face of the planet; 3. Support to build a first-rate physical and services infrastructure. If we can secure the support to bring in the best students, the best faculty members, and build the best facilities, we can accelerate our progress toward achieving the lofty goals of our strategic plan.

Q: WHY SHOULD ALUMNI AND OTHER DONORS SUPPORT THIS CAMPAIGN?

SH: I think that our alumni have a responsibility and an honor. To me, it’s an honor to be a contributor to Stevens. I am in an industry — investments and finance — that has served my wife and me very well over the last 33 years. And now Stevens is in that (business and finance education) space. So it’s wonderful that we have an opportunity, and we certainly ask others to give great consideration to thinking about their industry and how well it has served them and their family, and to give back to Stevens, looking for opportunities in your industry. I think there’s wide opportunity for all Stevens alumni to find something they like, whether it be supporting faculty, supporting scholarships or supporting the facilities on this jewel of a property.

NF: We have many generations of young men and women who came to Stevens, received a high-quality education, graduated and embarked on a successful career trajectory. They became exceedingly successful, and I think that as a result of the collective successes of these generations of alumni, our country and our world is a better place. I think that many of these alumni would feel very good if they supported their alma mater in order to ensure that there will be many future generations of people like themselves so that our country and the rest of the world will continue to become a better place.

Q: WHY IS IT IMPORTANT TO GIVE TO THE CAMPAIGN BEYOND ONE’S ANNUAL DONATION?

LB: To me, the annual donations that people give are necessary because they support the annual operating budget of the school and help to control the increases in tuition. But the campaign helps us reach new levels and move toward the long-term vision and goals of the school, which are significant increases in students, accompanied by increases in faculty, infrastructure and scholarships.

For the entire interview, visit Stevens.edu/campaignQ&A.
ANNOUNCING THE STEVENS HALL OF ACHIEVEMENT

As it publicly launched its campaign, “The Power of Stevens,” the university also welcomed its first members into the Stevens Hall of Achievement. With inductions to take place every five years, the Stevens Hall of Achievement honors alumni, faculty and staff whose professional accomplishments have contributed in a significant and lasting way to the advancement of society, the economic sector, academic endeavors or Stevens itself.

WE ARE PLEASED TO INTRODUCE THE INAUGURAL CLASS OF INDUCTEES:

LAWRENCE T. BABBIO ’66 H.ENG. ’01
From his early days at Bell to his executive role in the merger that formed Verizon, Chairman Emeritus of Stevens’ Board of Trustees Larry Babbio helped create the modern telecommunications industry. As Verizon’s vice chairman and president, he used his engineering expertise to develop FiOS, the integrated network that provides cable, internet and phone service to millions of customers. He is also a philanthropist and an extraordinary benefactor of his alma mater.

ELIZABETH E. BAILEY M.S. ’66 H.ENG. ’00
A trailblazer in her field, Dr. Elizabeth E. Bailey is the John C. Hower Professor Emeritus of Business Economics and Public Policy at the University of Pennsylvania’s Wharton School. She has performed decades of research on economic regulation and deregulation, contestability theory, market structure and corporate governance and social responsibility. Bailey was the first woman to receive a Ph.D. in economics from Princeton, the first woman to lead a department at Bell Labs and the first female commissioner of the Civil Aeronautics Board.

DAVID J. FARBER ’56 M.S. ’61 H.ENG. ’99
Known as the “Grandfather of the internet” — for his graduate students who went on to be among fathers of the internet, as well as for his own contributions — David J. Farber is the Distinguished Career Professor of Computer Science and Public Policy at the School of Computer Science at Carnegie Mellon University. He has also held posts at the University of Pennsylvania and the University of California at Irvine, and with Bell Labs and the Rand Corporation. Having made major contributions to programming languages and computer networking, Farber served as the FCC’s chief technologist.

CHARLES S. MOTT, CLASS OF 1897 H.ENG. ’37
A pioneer in the automotive industry, Charles S. Mott was an original partner in the creation of General Motors Corporation and served on its board of directors from 1913 to 1973. While at General Motors, he promoted several technological improvements, such as the use of common bodies, to streamline model production. In 1926, he established the Charles Stewart Mott Foundation, which has since given hundreds of millions of dollars to help the well-being of national and international communities.

FREDERICK REINES ’39 M.S. ’41 H.ENG. ’84
Frederick Reines was awarded the 1995 Nobel Prize for Physics for his discovery, with his colleague Clyde L. Cowan Jr., of the subatomic particle called the neutrino. From 1944 to 1959, he conducted research in particle physics and nuclear weaponry at the Los Alamos National Laboratory in New Mexico. Reines later joined the faculty of Case Institute of Technology (later Case Western Reserve University) and, subsequently, the University of California at Irvine, until his retirement in 1988.

For more on the Hall of Achievement, visit stevens.edu/hoa
By the time Master of Ceremonies Natalie Morales, longtime Hoboken resident, news anchor and co-host of the TODAY show’s third hour, took the stage at the “The Power of Us” Campaign Kick-off on May 7, guests had already been treated to a look at “The Power of Stevens.”

The skies cleared for this lively party along the Hoboken waterfront, as more than 500 members of the Stevens community gathered to mark the launch of the university’s historic $150 million campaign — and to see “The Power of Stevens” in action. One prime example: the evening’s Innovation Festival, which featured 19 projects from students and faculty, showcasing examples of leading-edge innovation.

Phil Crowley ’71 spent much time speaking with the student team that created the Computer Vision Based Co-Robot Wheelchair, which includes a head-mounted camera and sensors that allow the robot and user to interact and implement a number of commands.

“The quality of the work is outstanding,” he said. “It’s amazing that these are undergraduates who have put this together. It’s the application of technology to modern life to create a better future for us all.”

Tents erected on Stevens’ waterfront property created a romantic setting for this landmark event, transforming the space into an elegant display arena, small theater and lounge areas overlooking the Manhattan skyline.

The evening’s formal presentation featured a few appearances by “Edwin A. and Martha Stevens” to remind the crowd how far technology has advanced over the years and the roles that Stevens alumni have played in forging those advances. After the inductions of five alumni into the new Stevens Hall of Achievement (see opposite page); remarks by Matthew Heinrich ’16, one of three first-in-class students; an address from Samantha Kleinberg, an assistant professor in the Computer Science Department; and a brief State Of Stevens exchange between President Nariman Farvardin and Virginia P. Ruesterholz ’83; Lawrence T. Babbio Jr. ’66 and Lisa M. Mascolo ’82 publicly announced the launch of the campaign and its $150 million goal.

“The university is on the move,” said Babbio. “We are agile and innovative. The opportunity to make a lasting difference is before us.”

For an evening that concluded with dancing and a dazzling fireworks display, it was not one particular moment but rather the entirety of the event that impressed Elizabeth Pallone ’88.

“It’s really exciting to see the vision for the future and all the progress that has been made. It’s exciting to be a part of it,” said Pallone.

Two very special guests provided a true link from Stevens’ beginnings to the launch party. Sam Reckford and daughter Molly Reckford, descendants of the Stevens family, attended the event and spent part of the evening admiring student projects, particularly The Little Juliana, a replica of the steamboat built by Col. John Stevens in 1804.

“I’m really impressed with the handiwork,” Sam Reckford said. “We are very impressed with the creations of the students and their solving of problems that we didn’t know they were working on.”

“The Stevens community interacts with us a lot more than most institutions do with their founding families,” Molly added. “It’s very interesting and engaging to me to be involved with this institution. It’s a beautiful event.” — Beth Kissinger
This robot can move, swivel, bend at the waist. It can move, swivel, bend at the waist. It can respond to voice commands. It can wiggle its fingers, take a selfie with you, play “Simon Says” — and tell if you’re cheating at the game.

It can also tell you how it was built: printed completely from scratch, in record time, by students operating two programmable state-of-the-art printers in Stevens Institute of Technology’s new PROtotype Object Fabrication (PROOF) Lab.

And, in April, this unique robot traveled to Liberty Science Center in Jersey City for an exhibition. How did that happen? Through collaboration, technology and ingenuity.

**Inspiring future science students**

Stevens previously collaborated with the Science Center in spring 2015, when four student Senior Design team projects — a mobile robot, model-scale self-coupling and detachable trains running on a track, an Ironman-like body armor suit and an open-source electric guitar — were exhibited for four days.

“I think it’s fair to say this was a big hit,” says Stevens PROOF Lab director Kishore Pochiraju, who coordinated the exhibition with LSC.

“The Science Center is always interested to partner in ways that showcase cutting-edge tech for our guests; these are the technologies that are shaping our world,” notes Bryan Blaney, director of guest engagement for LSC, which hosts 600,000 visitors annually. “What was particularly exciting about Stevens students working directly with our guests, apart from the technology, is that our guests — many of whom are middle- and high school students — can see people not much older than they are doing amazing work.”

After discussions began about collaborating on a second Stevens exhibition, LSC came to Stevens with the idea of 3D printing a robot that could be at once interactive, instructive and educational. They settled together on a design from pioneering French designer Gael Langevin and transformed a SolidWorks software model of Langevin’s robot into a stereolithography CAD file.

“The Science Center is always interested to partner in ways that showcase cutting-edge tech for our guests; these are the technologies that are shaping our world.”

— Bryan Blaney

Next, students in a graduate additive manufacturing course taught by Stevens research engineer Biruk Gebre ’06 M.Eng. ’09 began
printing approximately 100 limbs, joints, ‘bones’ and other mechanical parts of the robot in polyvinyl chloride (PVC) plastic. Then, over the end-of-year semester break, Peter Bruinooge — a fifth-year mechanical engineering major with prior experience crafting infant products on 3D printers and helping redesign a body-armor suit for the Department of Defense — started putting all the pieces together.

“That was a difficult task,” says Pochiraju admiringly. “But he did it, and he did it exceptionally well.”

“I really enjoy the process of creating things from thin air,” says Bruinooge, who also performs charity work and was a member of the Stevens bowling team. “I was always that kid with LEGOs, the one who liked to take apart and build things with his hands. This is an extension of that.

“With 3D printing, you can design something on a computer and, just a few hours later, begin producing a prototype of the object.”

**Quickest-produced in the world**

As printers whirred and a body swiftly began taking shape, Bruinooge connected the servos and motors that animate the robot. Within a few weeks, it was half-complete.

“This is probably the fastest-produced full upper-torso 3D-printed robot anywhere in the world right now,” notes Pochiraju.

Bruinooge then worked with Gebre and Stevens student experts in computer and electrical engineering to gradually wire up, power and program the robot with additional motors and servos and an Arduino control module in time for the exhibition.

At the Science Center, Pochiraju hopes it will spark the imaginations of all who see and interact with it.

“LSC receives hundreds of thousands of visitors each year: parents, high school and junior high-school students, educators, the local scientific community, many others,” says Pochiraju. “We’re so pleased to be able to bring Stevens’ student ingenuity and a fun application of our own technology to their diverse audiences. And we hope it inspires some of these young people visiting the science center to become interested in science and engineering educations and careers themselves.”

“We could certainly see extending the collaboration,” adds LSC’s Blaney.

As for the robot?

“If it goes well, I imagine another museum may wish to do a similar exhibit with us,” says Pochiraju.

Stevens’ PROOF Lab includes eight 3D printers in total, including an Objet professional printer capable of printing multiple materials simultaneously and working in both stiff and bendable plastics.

— Paul Karr
Newton "works" on music at Soundmirror, a Boston-based music recording and production company he founded in 1972. In 2000, he opened a second studio, Soundmirror Korea, in Seoul, South Korea, which offers the same services as its American counterpart and is run by Byeong Joon Hwang, one of his former interns. The company has collected 19 Grammys — eight of which belong to Newton — in various categories, from Best Engineered Album, Classical, to Best Small Ensemble Performance.

To this day, Newton still manages the business, guiding his team of five employees, interfacing with clients, coordinating teams, scouting facilities around the globe and keeping track of the timeline. And he enjoys every minute of it. "It's great fun to be able to do what I do," he says.

Newton found his niche during summer breaks while at Stevens, which he chose for its stellar reputation. (And because it's not Rutgers.)

"My dad spent his career teaching double-E (electrical engineering) at Rutgers, so I didn't want to go to school there. Stevens was close enough and had a great reputation, so there I went," he says. One of the best things about Stevens, he recalls, was living on the SS Stevens, the ship that served as a floating dorm on the Hudson from the late '60s to the mid-'70s.

"I believe we were the first class to live on the ship, and it was nice because it was a little away from campus and it was itself a complete little village, with all kinds of rooms, which we explored extensively," Newton says.

He first landed a job in the summer of 1969 for WCRB, which broadcast the Boston Symphony Orchestra's summer performances at the Tanglewood Music Center. "I grew up with classical music and though I didn't particularly study it as much as I wanted to or should have, when I heard the orchestra for the first time at Tanglewood, it was done. After two summers, the symphony hired me away to be an engineer.

"I met people in the industry every summer and eventually went to work part-time for a little-known company called Dolby Labs — you ever hear of them? — back when it had a staff of three in London and one in New York City. I worked as a service engineer and did a little sales work, although I wasn't very good at the sales part," he admits.

After graduating from Stevens, Newton went to work for Vanguard Records for about a year before he opened Soundmirror. He continued to work for Tanglewood for 15 summers and did the PA work for Stevens' commencement ceremonies for 10 years after his own graduation, but eventually it got to a point where he couldn't
dedicate that much time away from his business.

Spurred by his love of classical music, Soundmirror specializes in orchestral and operatic recordings. While both types of recordings are done during live performances, operas present a few extra obstacles.

"Operas are tricky because there's the visual element — the sets, the costumes. Secondly, there's a lot of movement and, consequently, there's a lot of noise. Almost all are live recordings and we record actual performances," he says. "Post-production is twice as long because we're removing more noises and a lot more people have to sign off, whereas with the orchestra, there's only one — the conductor.

"For an opera recording, we'll record multiple performances and rehearsals — their rehearsals are our rehearsals — and at the end of the run, we'll have a few hours with the orchestra and singers and we'll have them perform what we need to re-record, usually at times when the audience started to applaud or where there was more noise," he explains. "It's the same with an orchestra, where we record live performances and then we'll have them for an hour or so and we'll have them go over what was missed."

While Soundmirror has always been his focus, Newton found time to explore other opportunities in the recording world. In the early '80s, Newton served as the East Coast manager for Soundstream, a digital audio recording company, where he traveled the world taking digital recordings. He also spent two years in Holland in the late '80s working as the head of the recording department at Philips.

"I kept my company in the U.S. because we were still doing many recordings here so, for two years, I flew back and forth every other week. Two years was enough of that," he says. "But that experience led to the development of the Super Audio CD (SACD), so I started working by making a lot of recordings using SACD and going to trade shows conducting SACD demonstrations, and talking with record labels to take up this new technology."

Newton's hard work — and love of what he does — come through in the finished product, as shown by his collection of Grammy nominations and awards. Having recently won an award in 2016 for "Best Choral Performance" for the Phoenix and Kansas City Chorales' "Rachmaninoff: All-Night Vigil," he explains that it's the nominations that are key.

"The first win is definitely the most exciting, but overall, for our business, the nominations are most important and just being there, you're in such wonderful company," he says. "The Grammys have been an important part of our business because the nominations indicate the level of the music that we work in. There are only five recordings nominated for each category each year, so we must be doing something right."

With more than 90 nominations under Soundmirror's belt, Newton continues to look to the future.

"Luckily, there's a tremendous demand for good music and it keeps reinventing itself," he says. "Who knows, maybe next year we'll hit 100." — Rebecca Markley

One of the best things about Stevens, he recalls, was living on the SS Stevens, the ship that served as a floating dorm on the Hudson from the late '60s to the mid-'70s.
We actually got married after final exams, had our honeymoon, and then came back for graduation. Right after the graduation ceremony, we got in the car and drove across the country.

Although Stevens was an all-male school at the time, Shainin met his future wife at Castle Point, as a member of Theta Xi, the fraternity in which he served as house manager and president.

“I met my wife at a fraternity party. She was going to Hunter College and belonged to a sorority that didn’t have any facilities. They wanted to use our fraternity house for a social event, and we agreed on the condition that they would have a party with us too. That was the price of the rental. They did, and the rest is history.”

Their cross-country journey led the Connecticut-born and raised Shainin to the West Coast, where he accepted a job at a shipyard designing deck machinery for boats. It was an opportunity that also encouraged what would become a life-long passion.

For Shainin, now an engineering executive, one of the great pleasures in life is to sail around Puget Sound, near his home in Mount Vernon, Washington. But his commitment to this pastime goes far beyond pleasure cruising. Over the years, he has sailed his 50-foot Sparkman & Stephens yacht across the Pacific in a number of races.

“My crew and I participate in races regularly, both here and in Canada. We have sailed from San Diego to Skagway, Alaska, as well as to Maui.”

Shainin says that it was at Stevens, with its proud maritime tradition, that he was first able to nurture his boyhood fascination with boats.

“I was part of a sailing team that sailed small fiberglass boats called ‘tech dinghies.’ Also, in my senior year, I took several naval architecture courses at the Davidson Lab. I have found those classes useful and interesting ever since.”

Shainin is chairman and CEO of Shainin LLC, an engineering consulting company founded in 1974 by his father, Dorian Shainin. (His brother, Richard ’72, is executive vice president of the Shainin Group.) The company grew to a two-person firm when Peter Shainin joined his father in 1984. Although Shainin had ambitions to expand the company, he faced resistance from his father.

“He wasn’t interested in taking on employees because he wanted to retire, but I wanted to build a business. Around 1990, he turned the company over to me, and I started bringing people in and building the business to what it is now.”

Today, the Washington-based company has roughly 70 employees and provides consulting services in North and South America, Europe, and China.

Although Shainin plans to maintain his chairmanship, he intends to step down as CEO. “There’s a lot to do as CEO, including a lot of traveling. I’m old enough now that I don’t need to be CEO. I’ll be promoting someone to that job before too long.”

Once he relinquishes his CEO duties, Shainin plans to devote more time to racing, as well as other interests, including working in his hobby machine shop.

As he looks back on his college experience, he said the Stevens education he received 50 years ago influenced every aspect of his life.

“When I got out into the workplace I discovered that my engineering knowledge was as good as the best engineers I came across, and better than most. But the benefits of college are much broader than that. My Stevens experience taught me how to learn on my own, and I’ve learned something new every day, ever since.” ✔ — YoungSoo Yang
Maria Ramos ’00, a 16-year veteran of Johnson & Johnson, spends much of her free time mentoring the next generation of engineers. Through Stevens and the Society of Professional Hispanic Engineers (SHPE), Ramos helps new engineers — interns and new hires — navigate J&J and, if necessary, their lives beyond the company.

“I make myself available any time for my mentees — and I take calls on Saturday!” she says. She’s happy to give professional feedback, but prefers to listen and ask questions, to help each of her mentees get to his or her own answer. “I’m always looking out for their best interest, keeping the individual in mind,” she says.

Ramos, who often participates in “dinner and discussion” events at Stevens, returned to campus in March to take part in a Society of Women Engineers panel where she offered sound, succinct advice to the audience.

“Avoid procrastination,” she said, when a student asked for tips on how to be successful as an engineer just starting out. “You know how you always wait until the last minute to study for a test? Don’t do that.”

Ramos knows, though, that some of her most important advice is dispensed in her role as J&J’s subject matter expert for interview coaching. She, along with her J&J colleagues, conducts first-round employment interviews. Once candidates are selected to move on to the second round of interviews, she and her team meet with the students to go over the positives and negatives.

“We give pointers about what went well and what didn’t go so well and, if necessary, we’ll meet with them one-on-one to make sure they’re prepared because it’s a very competitive process,” she says. “The bad part is that I stress the students out, but they’re grateful after the experience. I’ve received a lot of feedback that these coaching sessions help them throughout their careers.”

Ramos’ own non-linear career path helps her understand the need for good mentoring and coaching. Before attending Stevens, Ramos, who also has an associate’s degree from New York City College of Technology, was a mechanical engineer. Working with all men, she welcomed the challenge of being the only female engineer until one of her colleagues questioned her ability. Then she welcomed the challenge of proving him wrong.

“The company owner’s son, a Stevens alumnus, told me that I wasn’t a real engineer because I didn’t have a bachelor’s degree and I would never make it at a college like Stevens,” she says. “So I applied and got accepted.”

She shared her acceptance letter when she turned in her resignation during a promotion meeting, and graduated from Stevens four years later with a degree in computer engineering.

In her current position as a manager for quality and compliance, research and development at J&J, she serves as a business liaison within R&D, ensuring compliance with their business procedures. The business process management improvements within R&D are making sure that all aspects of compliance of J&J standards meet up with regulatory industry standards. It keeps her busy and creates some real opportunities for “thinking outside the box” because no two days are alike, something she loves.

She also appreciates the “environment of mentorship” that J&J cultivates, which allows for effective mentor/mentee relationships. Ramos, who has many mentees, currently has her own mentor and has had them throughout her career.

“I want to help others the way I’ve been helped,” she says. “I’m proud that I’ve played a role in getting my mentees where they are today. Their accomplishments are my trophies.” — Rebecca Markley
Daniella Kranjac ‘99 called Tech Hall her home office, as she juggled tough chemical engineering courses, Senior Design and her biotech startup in her dorm room. For this young entrepreneur — her business partner did work out of his garage — it was a memorable senior year at Stevens.

“I'm that person — I put my head down, I'm going to do it, I'm going to get it done!” she says with a laugh.

Kranjac’s co-op job at Schering-Plough, and her collaboration with a colleague there, led to her co-founding, during her senior year, Bio-tech LLC, which she helped to grow into a $25 million company. As vice president she led a team of 40 before she was 30 and later steered its sale to GE Healthcare in 2007. Wave Biotech's breakthrough technology, invented by her colleague (Kranjac worked on the prototype), was the Wave Bioreactor® and Cellbag® — a single-use bioreactor system that enables cells to be cultivated in a pre-sterilized bag, eliminating the more contamination-prone stainless steel tanks and piping.

Her marriage to Richard Ferraro ’98 and eight successful years with GE Healthcare followed, where she rose within GE to business development director and global head of Enterprise Solutions, an entrepreneurial initiative inside GE. One of her main tasks was to help countries and biopharma players, especially in emerging nations, to develop their own in-country manufacturing capabilities for essential biopharmaceuticals, vaccines, cancer therapies and insulin.

But working for someone else — even a world leader like GE — never felt quite right.

Now, Kranjac is once again following her own entrepreneurial path.

The Montclair, New Jersey resident launched DYNAMK Consulting LLC last year, where she does business development consulting for life sciences, biopharma and tech firms. More recently, she has co-founded DYNAMK Capital, a private equity firm and opportunity fund that she has started with her brother, attorney Mario Kranjac. The firm aims to provide much-needed capital to smaller life sciences and technology firms. She now travels the world for clients, meeting investors, and calling upon her substantial contacts — from Europe to the Middle East to Asia — after almost 20 years of working in the field.

“You feel so much more ownership in the end results,” she says, when contemplating her own company and fund. “You feel greater satisfaction, and the passion comes through in helping so many more businesses thrive.”

Her client list includes life sciences, biopharma and technology companies. Kranjac, who holds a NYU Stern School EMBA, proudly recalls helping a client with a failing product line by introducing effective sales team strategies and showing the team how to strongly position and market their products.

Helping others to bring essential medicines to the world — orphan drugs for patients with rare illnesses, for example — is among the many rewards of her work, she says.

“When you see what the life sciences and biopharma can do to benefit lives through cancer therapies and vaccines, it’s really incredible. In a little way, I’m linking that chain. It always feels good.”

Stevens and her co-op experience gave her the background she needed to truly understand the technologies of the companies that she serves.

“I think that is what Stevens gives you — it’s a tough curriculum but rewarding and very relevant,” she says one afternoon in Montclair, over an espresso at a local Italian eatery.

As busy as she is, Kranjac is also looking out for other women. She helped to establish the New York metro chapter of Women in Bio, an organization that aims to promote careers, leadership and entrepreneurship for women in the life sciences, and also mentors women in engineering and marketing.

“You need someone to tell you what to watch for. Politics, business dynamics — everyone needs help navigating that early in their career.

“Still it’s hard to ignore the numbers,” she says of the low number of women in top corporate leadership jobs in tech and the sciences. “We need more women in leadership and participating on corporate boards, and we need to continue encouraging women in STEM fields.”

This first-generation college student (along with sister Suzanne McIntosh ’00) and the child of Croatian immigrants feels energized by being an entrepreneur who takes manageable risks. Looking at her parents’ and grandparents’ journeys to America, in search of a better life outside the former Yugoslavia, gives her perspective.

“Seeing the risks they took make my risks seem small in comparison,” she says. ❖

— Beth Kissinger
ACROSS THE GLOBE, A LOVE FOR STEVENS

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Ituated on the Caspian Sea, between Russia to the north and Iran in the south, lies the Republic of Azerbaijan. This former Soviet Union territory, roughly the size of Maine, is where Professor Muhammadou Kah ‘92 M.S. ’92 Ph.D. ’99 now calls home.

The Stevens alumnus arrived in Baku, Azerbaijan, in 2015 with his wife, Dr. Jainaba Saho Kah, and their three daughters, to become the founding dean and professor of information technology and communications at ADA University. He currently serves as the university’s vice rector for technology and innovation.

In his 20-plus years in higher education, Kah has held teaching and leadership positions in the U.S. and abroad.

Born and raised in The Gambia, Kah moved to the United States to study technology management and information systems at Stevens, within what is now the Stevens School of Business. Ask him about his alma mater, and his unabashed love for Stevens, which he continues to think of as “home,” shines through.

“I grew up on that campus. I tell people that Stevens is the best-kept secret on the Hudson. It shaped and prepared me for the world,” he says.

Kah, however, didn’t realize at the time he completed his Ph.D. just how far, literally, his Stevens education would take him.

His first full-time academic position was as director of institutional research and strategic planning at Bloomfield College in New Jersey. He would go on to cement his career in academia at Howard, George Washington and Rutgers universities, developing and teaching courses in information technology, computer science and information systems.

It was during a sabbatical from Rutgers that he first began thinking about an academic life outside the U.S. He received an invitation from American University to help set up a private university in Nigeria — American University of Nigeria (AUN) — and to become the founding dean of a new school of IT and communications and also CIO within that university.

“As someone who is African-born, the opportunity to prepare the next generation of young Africans with an American-quality education was compelling,” he says. “So when American University came calling, I didn’t hesitate.”

That embrace of challenge and solutions-oriented attitude weren’t the only things from Stevens he brought to his new post.

“I lead the design of the curriculum, interestingly enough, not significantly different from what I had gone through at Stevens, in terms of its breadth, its depth and its rigor. All programs were successfully accredited and graduated the first cohort during my tenure,” he says.

Now, AUN is one of the best private universities in sub-Saharan Africa, he proudly states.

“Some of the school’s graduates were admitted to top universities in the U.S., Canada and the UK on scholarships to pursue graduate studies, and others are leading successful tech startups in Nigeria. So, in my own way, I was able to transfer everything that Stevens was about to these young, diverse Africans in this remote place in Nigeria.”

After four years in Nigeria, Kah returned to his birth country in 2009 to become the third president of The University of The Gambia and Overseer of the Teachers College. He was also the first Gambian to lead that university.

He served as president for six years and continues to be an advisor to the President of The Gambia on Science, Technology and Innovation, the Ministries of Basic and Higher Education, many boards in the banking and higher education sectors in The Gambia and Nigeria.

Last year, he was presented with yet another opportunity — this time in Baku, Azerbaijan. The economy is vulnerable to the volatility of the oil and gas market and one of the top priorities for that country, Kah explains, is to reduce dependency on oil and gas and gradually shift to a knowledge-based digital economy. But to do that, the country needs to develop the human resources and information technologies needed to become competitive in the global economy. It’s a challenge, he says, that has remained constant throughout his professional life: to improve the human condition by strengthening the education infrastructure with computing, engineering, science, IT education and innovation.

“When you are fortunate to have received an outstanding education and have been exposed to the cutting edge of technologies, you yearn to pass that over so others can have the same opportunities,” he says. — YoungSoo Yang

▲ Dr. Muhammadou Kah ’92, far left, is honored by The University of The Gambia, which he had served as president.
Ryan Kerrigan ’07, a son of Middletown, New York, scored a dream job with ExxonMobil, heading west right after graduation, landing right in the heart of East Texas oil country in a place called Baytown.

Stretching across five square miles just east of Houston, ExxonMobil’s refining and petrochemical complex employs 5,000 people, and processes 561,000 barrels of oil a day. The scale and the mission of bringing energy to the people feel profound, Kerrigan recalls. So did moving half way across the country without really knowing a soul.

Smart, ambitious engineers like Kerrigan migrate from all across the country to ExxonMobil in the Houston area. But most don’t have a Stevens network to greet them, and they don’t know Frank Roberto ’76 and his wife Margaret Rose.

“Frank’s absolutely fantastic,” Kerrigan says of the longtime champion and father-figure of the Stevens-ExxonMobil recruiting program. “Frank has such passion and enthusiasm for everything that he does — especially the people development side.”

Kerrigan remembers the Stevens support system that made adjusting to a new life in Texas easier. This included Houston Alumni Club gatherings, lunches and phone calls from fellow alumni at ExxonMobil to see how he was doing. Now, he’s the one who interviews students and counsels recent Stevens graduates and co-op students as they adjust to life in the Lone Star State.

“When you get to a certain point in your life, you want to turn around and reach back to help the next person,” he says.

This theme runs through the Stevens-ExxonMobil connection, which unites several generations of alumni. Currently, Stevens has some 230 alumni who are employees or retirees of ExxonMobil. Among the 105 full-time employees, about 60 work in the Houston area plants or on the main campus in Spring, Texas. Others work in locations including New Jersey, Illinois, Louisiana, Singapore, Canada, Europe and Africa. The company also has Stevens interns and cooperative education (co-op) students each year.

The Houston Alumni Club, with Roberto as president and Kerrigan as vice president, routinely gathers alumni from the 1960s through the 2010s who work with ExxonMobil as well as many other companies in the greater Houston area. Alumni enjoy a steady stream of activities, from happy hours to baseball games to receptions with Stevens faculty and administration to the rodeo (more on that later).

ExxonMobil maintains a year-round relationship on campus, with recruiting at its core.

“I’m proud to work for an organization that has such a robust approach to fostering long-term campus relationships, recruiting top talent and ensuring interns, co-ops and new employees get off to a good start,” says Jim Szipszky ’89, who serves as team captain of ExxonMobil’s engagement efforts with Stevens. Campus activities include info sessions, career fairs, interviewing, hosting gatherings with potential employees/co-ops/interns and fostering relationships with student organizations, faculty and the administration. ExxonMobil also provides grants to the Mechanical, Chemical and Civil Engineering departments as well as Stevens student organizations and projects. The company has recently supported SWE, SHPE, NSBE, Engineers Without Borders, Formula SAE and the Solar Decathlon.

James Western ’05 is one of the Stevens alumni who travels to Hoboken to formal recruiting events. While on these trips, Western also speaks with students from the Society of Hispanic Professional Engineers and the American Institute of Chemical Engineers. Derek Wheeler ‘96 oversees the ExxonMobil presence at Stevens’ career fairs and speaks with student organizations including the National Society of Black Engineers. China Darin ’13, based in New Jersey, and Texas-based Lorrie Brabender ’07 team up to organize events with the Society of Women Engineers.

“None of us got here without being given a chance,” Western says. “When I volunteer my time to on-campus recruiting activities, I’m trying to help students find a connection to a co-op or fulltime assignment. It’s about giving great students a fair chance to compete against a national pool of candidates.”

Brabender and Darin are working hard to see that more women enter engineering careers, including those at ExxonMobil. At Stevens, Brabender has spoken with various student groups about her career at ExxonMobil. Brabender and Darin are working with SWE to plan a female career panel from various generations and career paths. A networking event is also on the horizon.

Brabender sees a need to show young female engineers how to balance being themselves and thriving in a male-dominated profession. She remembers the good mentors that she’s had who provided a safe place for honest career discussion. Now, she wants to do the same.

“I enjoy imparting that knowledge,” she says. “I want to share my experiences and ensure today’s students get off to a great start.”

Stevens students who are interns or co-ops for a few months are also embraced by the Stevens ExxonMobil family. Annemarie Thomas ‘17 had a Spring ’15 co-op assignment in Baytown and returned this May, for three months in Spring, Texas.

“To move from Hoboken to Texas is a big move,” she says. “Frank (Roberto) and Jim (Szipszky) do a great job. It all starts with Frank and Jim. They’re the father-figures out there.”

Thomas remembers lunches with Stevens alumni: Kerrigan, who helped introduce her into
the world of manufacturing and answer job-related questions and others who could help with anything from finding an apartment to career advice.

She can’t wait to return to Texas.

“The opportunity to work with so many brilliant people all in one place is an experience that I can’t put into words,” she says.

Tim Baccaro ’15, of central New Jersey, was inspired by the complexity and magnitude of ExxonMobil’s projects. He now works in ExxonMobil Research and Engineering’s Project Management Division. He speaks of how much easier the move west was made by this Stevens ExxonMobil network. Meeting friendly faces from Stevens who made him feel at home, explaining how ExxonMobil works, offering advice on Houston living, has made all the difference, he says. “Whether it’s going to the rodeo or just meeting for dinner, it’s always fun to hang out with the Stevens Houston family,” he says.

The rodeo? It was his first.

“Cowboys jumping off horses and wrestling bulls, children grabbing onto sheep until they fall off, lassoing cattle for time — not your average sport to watch in a football stadium,” Baccaro says. But between the livestock, the Texas barbecue and his Stevens buddies, it was a moment to remember. He went three days in a row.

Moving from New Jersey to Texas, away from her family and most of her friends, was a tough decision, says Tiffany Caroselli ’15, a cost engineer with ExxonMobil Research and Engineering in Spring. The hardest part has been that people in this new chapter of her life know nothing about her past or where she’s from. “The Stevens alumni network brings a piece of familiarity here to Texas,” she says.

“It’s really nice to be able to relate to one another and how much we miss good bagels, New York style pizza and Taylor ham. I will always cherish the relationships I have with people back home … but my friends here from Stevens understand a past part of my life in a way that my new friends can’t.”

Roberto knows something about Taylor ham. He and his wife, Margaret Rose, just brought five Taylor hams to new hires. “They just miss it!” he says with a laugh.

Roberto started recruiting at Stevens with the ExxonMobil team in 1999. “If you want top talent, you recruit from Stevens,” Roberto says. “I’m very proud of my Stevens education. It’s given me a good career.”

The ExxonMobil team is already planning get-togethers for interns and new hires coming this summer. “Margaret Rose always gives them her business card. It’s nice for them to know someone is nearby,” says Roberto and “that they have a Houston mom if needed.”

Looking to the future, the ExxonMobil/Stevens team will focus, as always, on attracting top talent and maintaining their strong decades-long relationship with Stevens. In Houston, Western, Caroselli and other alumni are working to expand Texas-based support of the Office of Undergraduate Admissions, to recruit even more outstanding Texas-based students.

“We have an amazing group of 50 alumni who have joined ExxonMobil in just the last 10 years,” Szipszky says. “They are doing great work and will ensure we have a bright future.”

— Beth Kissinger
“Buckle up... it’s going to be a tough century.” Those were the cautionary words of General Michael V. Hayden, former director of the Central Intelligence Agency and National Security Agency, in describing the state of world affairs in the 21st century.

Now a principal of The Chertoff Group, a global advisory firm comprised of experienced intelligence experts and security professionals, Hayden delivered a talk on “Danger, Complexity and Immediacy: Today’s Security Challenges” as the seventh speaker in The President’s Distinguished Lecture Series held at Stevens this past March.

Stevens President Nariman Farvardin introduced the former CIA director as a modern-day James Bond with an intelligence expertise few can match. The retired four-star general with a decades-long career in the U.S. military and government captivated the audience of students, faculty, alumni, media and invited guests who packed Stevens’ DeBaun Auditorium with an hour-long discussion of the tumultuous global environment and what it means for Americans and America’s interests.

There have been moments when the world was more dangerous than it is today, Hayden began, citing the Cuban Missile Crisis that brought the world to the brink of nuclear war. But never has the world been more complicated, or immediate, than it is now, he observed.

In a thoughtful analysis of what’s causing the geostrategic surface to change, Hayden outlined fundamental shifts, or “tectonics,” that have left the U.S. more vulnerable to chaotic events that occur beyond its borders than ever before.

**CHANGING TECHNOLOGIES, CHANGING BORDERS**

The most striking tectonic shift in the 21st century, said Hayden, is the diffusion of power caused by increased globalization and interconnectivity. The conventional use of hard power (military) by sovereign nation states is not enough to combat today’s global security challenges, he explained.

Cheap and fast access to advanced communications technology and software has enabled non-state actors such as religious fanatics, extremists and terrorist ideological groups and individuals to target and wreak havoc on societies and individuals rather than simply nations or states.

“The security establishment is having a hard time adjusting to it,” he admitted.

Quoting The New York Times columnist Thomas Friedman, he told the audience, “Trust all straight lines on maps.”

It was a comment Hayden made in reference to the changing nature of international borders, alluding to countries (Yugoslavia and Czechoslovakia) and vast empires (Ottoman) that no longer exist.

The artificial nature of these borders is most vivid in the Middle East, he noted, where territorial disputes continue to plague the region with no end in sight. U.S. involvement in the region in this century, according to Hayden, has merely served to unleash forces...
that had been “flash-frozen” 100 years ago.

In the aftermath of the Sept. 11 terrorist attacks on the U.S., one of the conclusions drawn by the intelligence community, noted Hayden, is that the U.S. is now threatened less by strong states than it is by failing ones. Hayden specifically cited the 2002 National Security Strategy, which found that poverty, weak institutions and corruption can make weak states, such as Afghanistan, vulnerable to terrorist networks and drug cartels within their borders.

But the strategic challenge he has spent the most time worrying about as an intelligence officer, Hayden revealed, is America’s relationship with China.

The two are not allies, he emphasized, yet there is also no good reason for the two to be enemies, considering the high stakes involved for both nations.

“Never has the economy of a status quo power been so enmeshed with the economy of an emerging power,” he noted.

The greatest threats to America’s peaceful coexistence with China are the structural weaknesses within China, he continued. A slowdown in China’s economic growth, that nation’s alarming environmental issues and the long-term consequences of a “one-child policy” could give rise to the nationalism and social unrest often associated with nations under stress, he said.

Lastly, Hayden spoke about the “bipolar” nature of America’s foreign policy, a policy that wavers between hawk and dove in dealing with conflicts abroad.

He described former President George W. Bush as a Jacksonian president: one who strongly believes in national defense and takes decisive action against any threat to the United States, its honor or its treaty allies.

Current President Barack Obama, on the other hand, is not so straightforward in Hayden’s view. He described the Obama doctrine as part Wilsonian and part Jeffersonian. The Wilson side wishes the U.S. to build a world order anchored in liberal human rights practices and international law, while the Jefferson side seeks to avoid war and foreign entanglements at all costs, Hayden believes.

In his opinion, the lack of a consistent U.S. foreign policy has played out most starkly in the Middle East. Describing an “all in” strategy in Iraq, an “in and out” tactic in Libya and a “don’t touch it” approach to Syria, Hayden posited that all three models have tragically led to similar chaos in those nations.

— YoungSoo Yang
S
tevens has named Dr. Kelland Thomas as the dean of the College of Arts and Letters (CAL). Thomas began working with CAL on June 1.

Thomas had served as associate director of the University of Arizona’s School of Information and director of the university’s Creative Computing Lab. From 2014 to 2015, he also served as interim director of the university’s School of Information: Science, Technology, and Arts (SISTA).

Since Stevens’ founding in 1870, arts and humanities education has played a central role in Stevens’ mission in educating future engineers, technologists, entrepreneurs and scientists in a manner that enables them to become literate, articulate, creative and ethically responsible. Established in 2007 by the Stevens Board of Trustees, the College of Arts & Letters is devoted to humanities and liberal arts education and research as seen through the lens of science and technology.

“CAL is already an exceptional place where the arts, humanities and social sciences are infused with technological thinking and doing, and I look forward to advancing that vision,” Thomas said of his decision to join Stevens. “At CAL, I see a tremendous opportunity to increase the reputation and identity of the school as a place where exciting research and teaching happens, one that prepares graduates to become critical thinkers and scholars, but with the extra dimension of understanding computing, technology, information science and how all of those things inform and affect our society.”

“I am delighted that Dr. Kelland Thomas is joining Stevens as dean of the College of Arts and Letters. His appointment begins a new chapter in the evolution of humanities, arts and social sciences education and research at Stevens. I am confident that, under his leadership, the College of Arts and Letters will distinguish itself as a premier college that creates new knowledge at the intersection of the humanities and technology, and one that educates the leaders of tomorrow who are able to seamlessly integrate the humanistic and technical domains,” said Stevens President Nariman Farvardin.

“The exciting growth trend in higher education is thinking about how technology, computing and the liberal arts work together and influence each other,” added George Korfiatis, provost and university vice president of Stevens. “Dr. Kelland Thomas’ background and experience as an accomplished musician, artist, researcher, educator and academic administrator make him perfectly suited to bring to bear this focus as dean.”

Thomas replaces former CAL dean Dr. Lisa Dolling. Thomas is co-investigator on a $2.3 million research award from DARPA (the Defense Advanced Research Projects Agency) to facilitate the interactive creation of jazz music by musicians and computers working together. In collaboration with investigators from the University of Illinois and Oberlin College, Thomas and his colleagues will build MUSICA (MUSical Improvising Collaborative Agent), a new software platform and device — possibly a robot — that will attempt to understand and improve the ways in which computers communicate with humans and create.

Thomas is also co-investigator in a research award to create a geographically accurate Virtual Harlem, a three-dimensional virtual reality environment useful for simulation, modeling, urban planning and game design, among other purposes.

Thomas holds a doctoral degree in saxophone performance and a master’s degree in music theory from the University of Michigan, as well as a bachelor’s degree in computer science from the University of Arizona. He also previously served as a professor and career development program coordinator in the University of Arizona’s School of Music and as a professor at the University of Windsor in Windsor, Ontario.

— YoungSoo Yang
Five Stevens Faculty Recognized By NSF, Air Force, NAS
APPLICATIONS INCLUDE SUPERSONIC PLANE TRAVEL, SKIN CANCER DETECTION, BURN-VICTIM CARE

Five Stevens faculty have been recently recognized with major research awards and fellowships, including three National Science Foundation (NSF) Faculty Early Career Development (“CAREER”) Awards, given to particularly promising young tenure-track researchers for five-year research projects.

“Stevens is fortunate to attract young faculty of the highest caliber,” notes Provost and University Vice President George Korfiatis. “These awards are a reflection of the quality of our new faculty recruits and the bright future they have at Stevens.”

Mechanical engineering professor Robert Chang received an NSF CAREER Award to explore and improve additive biomanufacturing processes used to 3D-print biomaterial-based tissue constructs at small scales for stem cell delivery. Chang’s other research at Stevens includes fundamental work in cell-material interactions for engineered tissue models and translational research on new imaging modalities and image-processing algorithms for deployment in clinical settings such as hospital burn units.

“This award will support our team’s efforts to advance new methodologies and enabling technologies to address both fundamental questions in the life sciences and translational hurdles in medicine,” he notes.

School of Systems and Enterprises professor Babak Heydari’s NSF award will support development of a new theoretical framework based on game theory and complex network methods to model the impact of architecture of products and systems on technological innovation and market competition.

In addition, as part of his NSF project, Heydari will create educational materials based on complexity sciences for children's science museum programs in New York City. His other research at Stevens includes investigations in modeling hybrid human-autonomous networks; spatial diffusion of risk; and silicon-based communication circuits and systems.

Negar Tavassolian, a professor of electrical and computer engineering, received her NSF CAREER Award for a project to apply millimeter-wave technology to biomedical imaging applications in an effort to diagnose skin cancer tumors earlier and more effectively than is currently possible. By dividing bandwidths into channels, each equipped with small antenna units, she proposes to create higher-contrast, better-depth imagery; proof-of-concept experiments will be performed at Massachusetts General Hospital.

She will also create educational programs in partnership with Liberty Science Center in Jersey City, New Jersey and a new graduate-level course on the biomedical applications of electromagnetics.

“Skin cancer is the most common and fastest-growing of all cancer types,” Tavassolian explains. “It is generally diagnosed through visual inspection by a dermatologist, who orders a biopsy in cases where cancer is suspected, but visual inspection is subjective and susceptible to human errors. There is a definite need for the innovative, low-cost and portable imaging technology we are offering in this area.”

Her other research at Stevens includes work on radio frequency and microwave technologies, bioelectromagnetics and micro-electromechanical systems (MEMS) with biomedical applications.

Mechanical engineering professor Nick Parziale was also recognized, by the Air Force Office of Scientific Research’s Young Investigator Program, for his work on a novel means of measuring the speed of a gas. Parziale’s three-year project involves the characterization of high-speed flows of air, nitrogen and other gases that help determine the heating and friction around proposed supersonic and hypersonic vehicles that could potentially travel worldwide in very short times and travel to space more quickly and cheaply than is currently possible. The research also carries potential defense applications.

“It’s fun when you get to go to work and try to solve problems that could allow us to travel from New York to London in a half-hour at Mach 10,” he says.

Finally, after a highly competitive process, Electrical and Computer Engineering Professor K. P. (Suba) Subbalakshmi was named a 2016 Jefferson Science Fellow by the National Academy of Sciences (NAS). Subbalakshmi’s one-year fellowship at the State Department in Washington, D.C. begins in August. She will serve as a senior advisor to the organization, providing up-to-date expertise in related science, technology and engineering topics that impact policy issues. She will also remain available to the department for other, short-term projects for five subsequent years after the fellowship has been completed. — Paul Karr
If these buildings could talk, what would they say?

It’s a question Julia Phillips Guignard has often thought about whenever she walks past a building in Hoboken.

The desire to bring awareness to these buildings was the inspiration for Guignard’s senior design capstone project: a book of photographs that takes viewers on an architectural exploration of Hoboken using 3D modeling and augmented reality.

“The photographs are coded to register with an application that acts as a camera. Through this application, a 3D model of the building or object featured in the photograph appears on the screen; and within the augmented photograph, audio that is registered to one of the images on each page tells a story about the building that I’m 3D modeling,” Guignard explains.

For the audio portion of the book, Guignard sought the expertise of the Hoboken Historical Museum for information about the 3D modeled buildings.

“An avid photographer since high school, Guignard developed a fascination with the local architecture in Hoboken while at Stevens as a double major in visual arts and literature.

Guignard plans to submit her application to the Apple store so that her work can be accessible to a larger audience.

In the meantime, her book of photographs is ready to be printed and will find a permanent home at the Hoboken Historical Museum.

❖ — YoungSoo Yang

Julia Phillips Guignard, right, discusses her photography book at the Expo. ✿

Hemmed in by rivers and subject to ocean tides, Hoboken is no stranger to high water. Superstorm Sandy inundated the city from all sides, and other storms have also wreaked havoc on the city’s flood-control infrastructure. Stevens’ elevated, cliff-top location poses additional challenges: Much of the water raining onto campus runs directly down sidewalks and off hillsides, unfiltered and unabated.

But a Stevens senior design project, created by civil engineers Zachary McKeel and Taylor Race, environmental engineer Adriana Herrera and engineering manager Sabrina Smith, is determined to capture rain on campus before it can create flooding below — using natural elements and structures.

The team’s novel stormwater-containment plan was recently awarded second prize in the Master Plan Category of the Environmental Protection Agency’s (EPA) nationwide Campus RainWorks Challenge.

The students’ plan complements the university’s ten-year plan for improving infrastructure by cutting down on stormwater runoff and reducing the flow of toxic and undesirable fuels, fertilizers and other substances into the Hudson.

Analyses by the team were informed by a quarter-century of weather data and the “first-ever hydrologic model of campus, which we built,” says McKeel. Those simulations revealed that the plan, fully implemented, would capture 20 percent of campus runoff year-round and cut the peak runoff rate by 11 percent during heavy rainstorms.

The plan works by attacking vulnerable spots on campus, including the intersection of Eighth and Hudson streets, Wittpenn Walk, the campus lawn and areas adjacent to the S.C. Williams Library. The team proposes to address these trouble areas by installing environmentally-friendly innovations such as: permeable paved areas and strategically placed gardens and cisterns.

In addition, several “green roofs” with rain-absorbing soils, grass and plants would be constructed atop campus structures such as the Howe Center and the Burchard building.

“We can do something or do nothing,” says Smith. “Our team is saying, why not install greener systems that, over the long term, will save money and improve the environment?” — Paul Karr

Creators of an EPA award-winning stormwater containment plan included, from left, Zachary McKeel, Adriana Herrera, Sabrina Smith, and Taylor Race. ✿
SPRING 2016 39

SHOWCASE

SEEKING A PATENT ON LIGHTING TECHNOLOGY

Each year, more than three million gastroscopic surgeries are performed using a gastroscopic tube. The quarter-inch tube that consists of four or five channels to host the lens, camera or videoscope, as well as instruments, also accommodates a light delivery system, taking up 30 percent of the tube’s diameter. Because the tube directly compresses the mucous membranes and can tear the lining of the esophagus, 54 percent of patients undergoing these procedures experience post-operative infections.

For her senior design project, biomedical engineering student Aleksandra Petelski developed EndoBrite.

Turning to the natural world, Petelski wrested the chemistry of fireflies to eliminate the need for an external light source or use of guide wires in gastroscopic procedures.

Aleksandra Petelski has developed EndoBrite, which uses the chemistry of fireflies for gastroscopic procedures.

Together with faculty adviser and biomedical engineering professor Art Ritter, Petelski developed the idea to use a bioluminescent protein system for light production. Patients undergoing the procedure or surgery simply swallow a translucent, acid-resistant capsule that contains the same enzyme as the firefly and illuminates the stomach, enabling the practitioner to see inside the organ. After 30 minutes, the gelatin capsule dissolves and is then passed through the digestive system, with no residual effect.

Petelski also worked with clinical advisor, George Pilligren, M.D., a surgeon at North Shore Health who provided guidance about the research and procedures used in gastric surgery.

Already, Petelski is engaged in the patent process, eager to commercialize EndoBrite. “Senior design helps you see the practicality of the problem you’re trying to solve within any field you plan to pursue,” Petelski says.☎ — Blythe Nobleman

A STARTUP THAT WILL CHANGE YOUR GYM ROUTINE

There’s only one fitness center at Stevens, so whether your passion is business or engineering, you work out next to students chasing different pursuits.

Omar Sarhan sees that as a good thing.

Sarhan, who majored in Business & Technology at the School of Business, is a co-founder of NovaFit, a company that wants fitness enthusiasts to have safer, more ergonomic options when they work out. And while the NovaFit team consists of Sarhan’s classmates in the Business & Technology program, the company owes a lot to Stevens engineers.

“Being surrounded by engineers — as a business major, I don’t always understand them, but it does influence how you think, whether it’s watching them on SolidWorks or just listening to them talk,” Sarhan said.

The NovaFit team, which also consists of Niccolo Bertini, Tomasz Kociolek, Chris Russo and Ezra Maize Jr., showcased a prototype and business concept at the Expo.

The team’s prototype barbell and a series of 3D-printed grips that Sarhan created came about with help from two Stevens alumni, Jim Bogush and Alex Benham, both mechanical engineers from the Class of 2014. Bogush is also a co-founder of the company.

A typical round barbell, for instance, is unnatural to hold, creating inefficiencies that hinder a workout. NovaFit’s grips solve that problem by conforming more naturally to the hands, improving confidence and performance.

Sarhan said his Senior Design class with Dr. CV Harquail got him thinking about how to commercialize the product. The team sought permission from Roger Power, the head strength and conditioning coach at Stevens, to set up a booth and allow athletes to test and give feedback on the equipment.

The NovaFit entrepreneurs hope to continue developing the company after graduation. ☏ — Joseph Arney

☎ The NovaFit team, from left: Omar Sarhan, Tomasz Kociolek, Chris Russo and Niccolò Bertini. Ezra Maize Jr. is not pictured.
ANALYZING CONFLICT

Above: Professor Lindsey Cormack Below: Stevens students Anthony Lanza, Jonathan Schwarz, Rob Robbins, Luke Malvey, Alex Haracz and Natalie Nuding visited the Lincoln Memorial during a trip to Washington, D.C. to attend the U.S. Department of State’s inaugural Diplomacy Fair.

Stevens students (left to right) Alex Haracz, Luke Malvey, Rob Robbins and Natalie Nuding with professor Lindsey Cormack on campus.
When Stevens assistant professor of political science Lindsey Cormack kicks off her “Introduction to Political Science” course each fall, she begins not with a recitation of American presidencies or an analysis of Florida voting-machine chads, but instead with a two-week dive into game theory: in essence, the mathematical modeling and study of human decision-making.

“I do this because today’s students need to be trained to marry the modern tools of data analytics with time-honored insights into history, conflict and political process,” explains Cormack. “Stevens attracts students who are rigorous in STEM subjects, but they may not have previously thought about ways to use mathematical and programming tools, for instance, to derive new insight into politics and human behavior.”

Now her research applications of that philosophy are attracting national and international attention on several fronts.

**ANALYTICS IN WAR-TORN NATIONS**

Thanks to Cormack’s involvement, Stevens is a key actor in the Diplomacy Lab, a partnership with the U.S. State Department and fellow institutions — including Yale, Hunter College and the University of Kansas — created by the department in 2013.

“Each semester Stevens submits bids for projects its students are uniquely situated to tackle,” she explains. “When State accepts one of our submissions, it’s very exciting.”

In the fall of 2015, a Stevens student team began performing original political analysis of U.S. policy as it relates to human rights atrocities in Burma, Burundi, the Central African Republic and the Democratic Republic of the Congo. This April, six members of the team presented on “Criminal Justice Reform for Atrocity Prevention in Burma, The Democratic Republic Of The Congo, The Central African Republic, and Burundi” at the first-ever Diplomacy Fair and to the State Department’s Bureau of International Narcotics and Law Enforcement Affairs.

“They selected us because we can provide unique perspective and, when needed, technical expertise and analysis,” says Cormack.

Next Cormack’s students will tackle an equally timely and critical challenge for the State Department — the rise of violent extremism and the U.S. government’s policy efforts to counter it — using technical tools.

Working closely with the Bureau of International Narcotics and Law Enforcement Affairs’ Office of Criminal Justice Assistance and Partnership (CAP), her team will first develop a database of law enforcement and rule-of-law programs worldwide that address or have previously addressed violent extremism, then analyze various elements for common, successful initiatives and structures.

Future Stevens analytics research for government agencies could tackle challenges in foreign aid, arms control, international trade and trends toward democratization, among others, points out Cormack.

**UNBOXING THE BELTWAY**

Cormack’s other main research area is also an eye-opener. She analyzes congressional communications to determine how congressmen and senators talk to their local constituents about what they’re thinking about and doing in the halls of Congress.

“Some have said these email communications are basically a form of junk mail,” Cormack says. “Well, if it is junk mail, I believe it’s probably the most important junk mail produced in the nation. This represents an important look at what our legislators prioritize.”

In 2009, Cormack created a unique database, DC Inbox, of all official congressional e-communications to their constituencies. By coding Python queries, she can quickly answer complex, nuanced questions about the roughly 90 percent of U.S. senators and congressmen who deliver regular emails to subscribers.

In the fall of 2014, for example, as Ebola infection cases began rising and fears raged in the national media, Cormack mined congressional emails to determine which representatives and senators were communicating more often and clearly about the disease to constituents.

Perhaps a bit surprisingly, GOP lawmakers were far more likely to write about the topic. “A whopping 82 percent are from Republicans,” she wrote in The Washington Post, analyzing a two-month period from early September through early November.

A deeper dive proved that wasn’t just a numbers game.

“Republicans send more messages than Democrats [about Ebola]. In the past two months, 69 percent of all e-newsletters have a Republican author,” she continued. “Even after accounting for differences in total amounts of e-newsletters sent, however… [M]essages sent by Republicans reference Ebola 24 percent of the time, while messages sent by Democrats only reference Ebola 10 percent of the time.”

Interestingly, by December of 2014 she discovered that both parties of Congress had already more or less abandoned the disease as a talking point to their constituents — just as national media outlets were doing the same.

Cormack has also analyzed sentiments toward President Obama, and will soon attempt to determine whether communications from legislators about veterans’ issues translate into tangible legislative actions. She will also consider a suggestion to begin harvesting and analyzing state governors’ email communications to constituents.

“This data is a fascinating peek inside Congress,” she concludes. “I hope to make the database, and the methods, even more accepted and accessible in the future.”

— Paul Karr
The new Stevens Institute of Technology Alumni Business Directory presents information and links to the many businesses owned and operated by our outstanding alumni. Whether it's a privately owned company, a partnership, sole proprietorship or home-based business, we encourage you to show your support for those businesses created, owned and operated by fellow Stevens alumni.

QUICK FACTS

ALUMNI BUSINESS DIRECTORY
For nearly 45 years, the Alumni Association has been providing scholarships to qualified students with legacy relations to Stevens. More than 130 alumni have benefitted from the generosity of the association and the many individual donors who have made this scholarship possible. To make a gift to this fund, the Stevens Alumni Association Legacy Term Scholarship, visit connect.stevens.edu/makeagift/scholarships.

SCHOLARSHIP SUPPORT
For nearly 45 years, the Alumni Association has been providing scholarships to qualified students with legacy relations to Stevens. More than 130 alumni have benefitted from the generosity of the association and the many individual donors who have made this scholarship possible. To make a gift to this fund, the Stevens Alumni Association Legacy Term Scholarship, visit connect.stevens.edu/makeagift/scholarships.

WE ARE ON THE MOVE
Over the summer, the Alumni Office will move to the 8th floor of the Howe Center (just one floor below where we are now). When the new academic year starts, make sure to stop by to see our new welcoming environment for alumni and the Stevens Alumni Association!

ALUMNI ASSOCIATION MEETINGS
Monday, June 13, 2016, is the last meeting of the 2015-2016 academic year. The 2016-2017 meeting schedule will be shared in August.

To register for a meeting and/or to participate in the many events being offered on campus and around the country, visit stevens.edu/events.

GET CONNECTED
We are pleased to announce the launch of the Stevens Alumni Portal — your one-stop shop for connecting with the Stevens community. Visit connect.stevens.edu/alumniportal to gain access to this exclusive alumni-only website where you can:

✦ Register for events
✦ Update your contact information
✦ Search for classmates in the Alumni Directory
✦ Post open positions at your company
✦ Search for jobs
✦ Make a gift
✦ Submit your business to the Alumni Business Directory

And so much more...
While most Stevens students are preparing to start their careers in science, engineering or business, Jayson Yano ’16 has his career aspirations pointing in a very different direction — professional baseball.

“The personal goal is to keep playing after college,” Yano said. “I’d love for it to be in Major League Baseball. There are other avenues, but the ultimate goal is to get drafted to a pro team or sign a free agent deal.”

This quantitative finance major, with a current 3.480 GPA, found himself being scouted by several MLB teams this past spring, as he dreamed of the big leagues. Yano first burst onto the scene for Stevens as a freshman when he hit .319 with 28 runs and 15 steals in 40 starts. The California native was named Empire 8 Conference Co-Rookie of the Year.

Yano followed up with a stellar sophomore season, a year in which he began to separate himself as an elite pitcher. It was as a junior, however, that Yano truly became a legitimate pro prospect, culminating with his selection as the Empire 8’s player and pitcher of the year, the first time both awards had ever been won by the same player.

Despite his early success in college, the dream of playing professional baseball wasn't something Yano always thought would be available to him.

“It was never really realistic out of high school because I wasn't there talent-level wise or physically, but once I got to college things started to click and the picture started to turn a little bit greener,” Yano said. “Then I realized there could be an opportunity there, and it became more realistic.”

Professional baseball is certainly the goal for Yano, but he does have a nice backup plan should things not work out on the field. Last October, Yano signed a deal to become a process consultant with Protiviti, a global consulting firm. Luckily for Yano, though, his future employer has been understanding and supportive of his athletic dream.

This multi-talented student-athlete has already had a taste of a baseball career, when he worked last year as an intern with USA Baseball, the national governing body for amateur baseball. Yano conducted statistical breakdowns of each player to provide to scouts, normalizing player statistics across all states and taking into account that some warmer weather states have better competition than cold weather states, skewing player stats.

“A pitcher that dominates in the Northeast may have overrated stats because he faced worse hitters than a pitcher from the South, since the South has better competition,” Yano said. “So my job was to be able to create a metric that could normalize the high school baseball industry. I would theoretically be able to compare a hitter or pitcher from the Northeast to a hitter or pitcher from the South, without any relative competitive bias.”

Yano — who received the President’s List award as a student-athlete who achieved a 3.8 GPA in fall 2015 — may find that his greatest fan is his coach.

“He is the most well-rounded and talented student-athlete, both on and off the field, I’ve ever coached,” said Stevens baseball coach Kristaps Aldins. “And that includes my time at MIT and Harvard.”

For now, Yano will continue his hard work on the field, while hoping his name will be called during the draft in June. At risk of getting too ahead of himself, Yano does have a plan in mind for that day.

“When the draft day comes, I’d prefer to be around my family,” Yano said. “That way I can celebrate with them if something happens.”

— Danny Vohden

Jayson Yano ’16 — stellar student and Ducks pitcher — was being scouted by Major League Baseball this past spring.
ALUMNI ASSOCIATION PRE-LAW PANEL

The Stevens Alumni Association and the College of Arts and Letters offered a pre-law panel discussion for students interested in pursuing a career in law. The panel, which was held March 3, featured professionally distinguished alumni in the field of law who spoke about their challenges and accomplishments, and how a Stevens degree contributed to their success. The panelists were Joseph J. Garvey ’71, who also served as moderator, a partner with Garvey Ballou, P.A.; Basam E. Nabulsi ’79 M.Eng. ’83, a partner with McCarter & English; Scott E. Charney ’93, a member at Charney IP Law LLC; and Sophy Sedarat ’04, a solo practitioner who also teaches constitutional law to undergrads.

Serving as panelists at a pre-law panel sponsored by the Stevens Alumni Association and the College of Arts and Letters, from left, were attorneys Basam Nabulsi ’79 M.Eng. ’83, Sophy Sedarat ’04, Joseph Garvey ’71 and Scott Charney ’93.

WCPR ALUMNI ASSOCIATION

The WCPR Alumni Association is very proud to announce that we have begun awarding the WCPR Outstanding Performance Award scholarship. The first recipient is Andy Waldron, the current WCPR general manager.

Recent WAA events have included a night out on Broadway for a group viewing of “School of Rock” and a movie night where members watched “Labyrinth” in tribute to the late legendary musician David Bowie. Also, a “Media Scan Day” of organizing photos and scans of documents from WCPR’s past was successful. There’s still a lot of media to sort through, though submissions are always welcome!

For more information on the WAA, including events and how to get involved, please check out the website https://www.wcpralumni.com/.

STEVENS METROPOLITAN CLUB

This club continues its monthly meetings at lunchtime at various restaurants within 20 miles of our alma mater. Some favorites include Bazzarelli’s and Segovia, both in Moonachie, New Jersey, and Marinero Grill in West New York, New Jersey, along with the Knickerbocker Country Club in Tenafly, New Jersey, for our December holiday gathering, courtesy of Rose and Bob Bosse ’50.

Of our 33 members, eight to 12 are able to attend our luncheon festivities, with at least six as “regulars.” Of our five living club past presidents, three are regulars. (The five are Charles Schnabolk ’53, Denny Candler ’55, Don Daume ’67, Marty Valerio ’68 and current president John Stevens ’72.)

Should you be so inclined to come, your visit to a club luncheon would be welcomed. You will find fellow alumni dedicated to this club, our alumni association and to interests of Stevens Institute. Give it a try. — Donald Daume ’67, secretary

HOUSTON ALUMNI CLUB

The Houston Alumni Club gathered at the Houston Technology Center in January for a “State of Stevens” address with Dr. George Calhoun, program director of quantitative finance and director of the Hanlon Financial Systems Center. The presentation serves to update the Stevens community on the latest research and achievements by students and faculty. The Houston chapter also held a mixer on March 8.

The Houston Alumni Club enjoyed a mixer in March.
CALENDAR OF EVENTS

**JUN 25 SATURDAY**
“It’s a Shore Thing.” Jenkinson’s Inlet Restaurant, Point Pleasant, NJ
Stevens.edu/events/shorething

**AUG 6 SATURDAY**
Graduate Open House, Babbio Center, Stevens campus
stevens.edu/openhouse

**SEP 7 WEDNESDAY**
Convocation, Stevens Campus

**SEP 30 - OCT 1 FRIDAY & SATURDAY**
Homecoming 2016, Stevens campus

For SAA and alumni club events, visit www.stevens.edu/alumni

For DeBaun Performing Arts Center events, visit www.debaun.org
MARRIAGES
Harvey R. Greenberg ’74 to Judi Cuthbert on March 26, 2016.
Jack Cheung ’09 to Carol Lok on Oct. 31, 2015.

BIRTHS
To Melissa F. Landis ’10 and Jonathan S. Landis ’11 a son, Jackson Scott, on March 1, 2016.

OBITUARIES
E.W. Kunz ’35 .................................. 1/29/15
J.S. Braxton ’37 ................................. 11/29/15
J.A. Dam ’41 ................................. 8/22/15
R.A. Marvinney ’41 .......................... Unknown
F.H. Weber ’42 ................................. 3/15/16
A.J. Zipay ’43 ................................. 2/20/16
E.E. George, Jr. ’45 ........................ 1/9/15
C.R. Wellhausen ’45 ........................ 1/24/16
R.J. Bazzini ’49 ................................. 6/23/15
L.A. Fattori ’49 ................................. 1/14/16
B. Gorcey ’49 ................................. 12/21/15
F.T. Sherman ’49 ............................. 8/3/14
J.V. Ernest ’50 ................................. 3/6/15
H.F. Miller ’50 ................................. 3/10/16
C.L. Sayre, Jr., M.S. ’50 ........................ 1/14/16
G.R. Schevon ’50 .............................. 5/16/15
H. F. Snyder ’50 .............................. 12/28/15
P. Appert ’51 ................................. 12/9/15
L.C. Dagne ’51 .............................. 6/17/15
D. Dinzik ’51 ................................. 3/5/15
F.R. Decker ’52 .............................. 2/15/16
M.J. Hendrickson ’52 ........................ 12/6/15
W.J. Knapsack ’52 ............................ 1/27/16
R.A. Vanderwolf ’55 ........................ 9/21/14
G. Paganussi ’57 .............................. 2/7/16
J.M. Piano ’57 ................................. 8/27/15
N. Rodopoulos ’58 ............................ 2/25/16
R.E. Grote ’59 ................................. 11/9/15
W.A. Heider ’60 .............................. 12/27/15
G.W. Spisak ’61 .............................. 12/30/15
J.W. Zorskie ’61 .............................. 11/9/15
P.J. Greenberg ’63 .......................... 12/26/15
J. Gerber ’65 ................................. 3/11/16
R. D’Amato ’68 .............................. 6/23/15
S.J. Ross ’73 ................................. 12/11/15
A.P. Puntasecca ’85 ........................ 11/14/15
D.L. Tsapatsaris ’92 ........................ 1/26/16
MAKE YOUR Mark

A special opportunity to give to Stevens Institute of Technology through your IRA has just been made permanent.

Class of ’60

For your gift to qualify for benefits under the extension:
- You must be 70 1/2 or older at the time of your gift.
- The transfer must go directly from your IRA to Stevens Institute of Technology.
- Your total IRA gift(s) cannot exceed $100,000.
- Your gift must be outright.

Direct gifts from your IRA to Stevens Institute of Technology can:
- Be an easy and convenient way to make a gift from one of your major assets.
- Be excluded from your gross income: a tax-free rollover.
- Count toward your required minimum distribution.

The Protecting Americans from Tax Hikes (PATH) Act of 2015, which was passed by Congress and signed into law by the President on December 18, 2015, made permanent what is popularly known as the IRA charitable rollover.

To make an IRA charitable rollover gift, contact us today:
Michael Governor | Director of Planned Giving
201-216-8967 | Michael.Governor@stevens.edu

Visit: stevens.giftplans.org

The information is offered for general informational and educational purposes. You should seek the advice of an attorney for applicability to your own situation.