In May 2017, I represented the Alumni Board at the college’s graduation ceremony, speaking to CST faculty, families and students.

With me on stage were remarkable CST researchers, some of the most accomplished scientists in their fields. They are elevating our college and Temple University into the ranks of the world’s premier research institutions. Before me sat hundreds of talented students who had already achieved so much but were prepared for new challenges in graduate or professional school and in promising careers.

CST alumni played a role in the success of many 2017 graduates. Several earned a CST Alumni Board Scholarship or benefited from alumni support of OwlCrowd campaigns that funded student attendance at professional conferences. Many graduates participated in the Owl to Owl Mentor Program, where alumni work one-to-one with students to map out career paths. Others connected with CST graduates at one of the college’s job fairs.

In my remarks, I urged graduates to take on a few more tasks. Whether you graduated five or 50 years ago, I think they apply to all of us who love this university. Be proud of Temple and promote it every chance you get. Participate in alumni events, from Homecoming to regional club activities. Finally, invest in CST, financially or with your time through programs such as Owl to Owl.

With each new graduating class, Temple alumni remain committed to helping the next generation of Owls succeed.

Sincerely,

Sina Adibi (BA ’84, CIS; FOX ’86)

Jennifer Gresh (BS ’98, EES) and Victoria Samuelsen (BS ’15, EES): Owls make a connection

When Jennifer Gresh graduated from Temple in 1998 with a geology degree, women in her field were relatively scarce. After graduate school, she started working for Duffield Associates, a geoscience and engineering firm where the reality of working in a traditionally male domain hit home. “When I went on a construction site it wasn’t always easy. Right away, I knew one of my goals would be to help other women succeed in geology,” she says.

As Gresh rose through the ranks from staff geologist to senior consultant to Philadelphia Services Leader, she saw a way to do just that—she joined CST’s Owl to Owl Mentor Program. One of her early protégés was a friend and classmate of Victoria Samuelsen. Samuelsen reached out to Gresh and asked her if she had room for another mentee. “We struck up a friendship and she would reach out to me over the course of her school career and during her first job,” Gresh says. “Eventually we were able to bring her onboard here as a project geologist.”

At Duffield, which provides consulting services for land development and acquisition, Samuelsen currently conducts phase-one and phase-two environmental site assessments, testing groundwater and soil samples. “I get my hands wet out in the field,” Samuelsen says. “It’s a different project every day, so I’m still learning all the time.”

For Gresh, hiring a Temple alum was a win-win. “Temple’s Geology Program is very field-oriented, and it positioned me well for this work. I knew that Tori would be well-prepared,” she says. “I have a strong love for the school, and nurturing these connections is a wonderful investment in the future.”

On Samuelsen’s side, the mentorship experience prepared her for the transition to the professional world. “I knew exactly what I was signing up for when I took this job, which is invaluable. It’s been amazing to watch a strong woman like Jen in action, because I have learned so much from her, on the construction site and beyond.”

—Elisa Ludwig
CST’S ALUMNI WEEKEND 2017

The College of Science and Technology hosted several of the most well-attended events during Temple University’s 2017 Alumni Weekend celebration.

More than 60 alumni and friends enjoyed Chemistry of Wine. Robert J. Levis, CST senior associate dean and professor of chemistry, deconstructed the interplay of chemical reactions that occur in producing delicious wines. Following the presentation, Greg Moore, president of Moore Brothers Wine Company, lead the group in a tasting of select wines and a discussion on the culture of winemaking.

Cryptography for Kids, which attracted more than 80 young people, explored the science of making and breaking secret codes that is used in virtually every aspect of our computer-based world. CST also hosted an alumni reception in the Science Education and Research Center just before Temple University’s Dîner en Cherry gathering.
**Vladan Radosavljevic (PhD ’11, CIS), Nemanja Djuric (PhD ’14, CIS) and Michael Molnar (BS ’13, CIS): Uber and Google successes**

Vladan Radosavljevic (PhD ’11, CIS) and Nemanja Djuric (PhD ’14, CIS) are part of the team Uber has assembled to develop an autonomous vehicle. Michael Molnar (BS ’13, CIS) is a technical program manager for Google.

Radosavljevic and Djuric initially worked for Yahoo Labs. About a year ago, the two Serbian natives joined Uber’s Advanced Technology Group in Pittsburgh. “Both of us are working on machine-learning problems related to self-driving cars, such as mapping, perception, prediction and safety,” says Djuric. “It’s really fun working directly on the car as we implement methods and solve problems.”

Adds Radosavljevic: “There are just a handful of groups in the world working on these problems, and we are one of them. It’s challenging, but we have a chance to change the world, improve the quality of life and save the lives of motorists and pedestrians.”

Molnar, who has worked for Google since graduating three-and-a-half years ago, first managed IT projects in Silicon Valley. Since last June, he has been a technical program manager in Google’s Manhattan office. “It’s great to be surrounded by smart, caring people who are just as passionate about what we are doing as I am,” he says. “It’s rewarding to see how our work impacts millions of lives each day.”

Uber’s Djuric also credits Temple for laying a foundation for their success. “Basically, everything we learned during our time at Temple regarding machine learning methods and tools we are now using in the real world,” he says.

Molnar, whose paternal grandparents both graduated from Temple, agrees: “Temple offers a strong foundation in technology—things like networking, basic programming capabilities, how various core technologies work—and those fundamentals have helped me understand what I work on at Google every day.”

—Bruce E. Beans
Jay Novik (BA ’67, Math) named to Temple’s Gallery of Success

Jay Novik, a national leader in both life and property/casualty reinsurance, has been named to the Gallery of Success, a collaboration of Temple’s Office of Alumni Relations and Career Center that highlights the success of inspiring Temple alumni.

Novik is currently a principal of Black Diamond Capital Partners, a specialty private-equity firm focused on insurance-sector investments with significant value-creation potential. During his career, Novik has held many leadership positions in the insurance industry. He was CEO of Atrium Corp., European International Reinsurance and Swiss Re Financial Services. He was also vice chairman of Swiss Re New Markets, Swiss Re America and other Swiss Re companies. He has served on the board of Talbot Holdings, AmeriLife Group, Shenandoah Life Insurance and Savings Bank Life Insurance, all portfolio investments.

Novik is a fellow of the Society of Actuaries and a member of the American Academy of Actuaries. He is also a director of AmeriLife Group, LLC and chairman of the Board of Shenandoah Life Insurance Company. He currently serves on the CST Board of Visitors.

Wei Chang (PhD ’16, CIS): Securing the mobile frontier

Wei Chang has always been interested in social networks and security issues, but since getting his first iPhone he has become especially fascinated by security and privacy risks associated with mobile social networks, peer-to-peer video streaming and the mobile cloud.

“Back in 2009, I downloaded many apps and made a lot of new friends through interactions on my phone,” Chang says. “In the same year, I read an article about bad guys who used the design defects in certain apps to stalk others. It was the first time that I realized there were some privacy and security issues in the cyberworld, and that they were so close to our daily life.”

Chang’s research revolves around developing solutions that can mitigate these growing risks. “Temple is famous as a research institution, and I was also drawn here to work with Professor Jie Wu, who is well known in the field,” says Chang, who earned an undergraduate degree from Beijing University of Posts and Telecommunications.

At Temple, Chang homed in on social information-assisted distributed system design, developing defense mechanisms for attacks and combatting privacy leakage. His own publications focused on allocating cooperative work in mobile social networks, location privacy and crowdsensing.

In 2016, Chang began a tenure-track teaching position in the computer science department at Saint Joseph’s University in Philadelphia, where he directs a new master’s track in cybersecurity. “For most users, we give our trust to apps by simply downloading and using them, but the fact is that these apps may intentionally or unintentionally leak our sensitive information,” Chang explains. “As computer scientists, we should understand the mechanisms or the techniques behind the apps we all use.”

Chang found his time at Temple served him well for the current challenges of his job. “As a PhD student, there are a lot of pressures and conflicting priorities, but as an international student, Temple was an ideal place, with classmates that provided mutual support,” says Chang. “I developed critical thinking, learned how to identify limitations of existing works, and gained knowledge and skills to improve them.”

—Bruce E. Beans

CST’s Paul Curcillo elected TUAA President

Paul G. Curcillo II (BA ’84, Bio), a current member of the CST Board of Visitors and a past president of the CST Alumni Board, has been elected president of the Temple University Alumni Association (TUAA) and, by virtue of that position, will serve a three-year term on Temple’s Board of Trustees.

As president of TUAA, Curcillo will help guide the TUAA Parliament, which advocates for Temple’s more than 320,000 living alumni worldwide and fosters closer relationships between alumni and the university. He succeeds Past President Scott Cooper, LAW ’92.

Curcillo is chief of Fox Chase’s Division of Minimally Invasive Surgery; director of minimally invasive surgical initiatives and development; and serves in the Department of Surgical Oncology. He is also president, co-founder and principal of SPacE Inc., an international medical and surgical education and consulting firm.

During his tenure as president of the CST Alumni Association, Curcillo was instrumental in launching the college’s successful Owl to Owl Mentor Program, where CST alumni meet with CST students to offer career guidance.
OWL TO OWL MENTORS ENTERS SIXTH SUCCESSFUL YEAR

Launched during the 2011-2012 academic year, CST’s Owl to Owl Mentor Program was established by the college’s Alumni Board to connect undergraduate students with successful, experienced alumni in similar fields.

In total, more than 450 students and more than 120 mentors have participated in the program, now a model for similar initiatives at Temple’s other schools and colleges. “CST mentors provide information, opportunities and support,” says Steven Szczepanski (BA ’79, PhD ’85, Chem) Alumni Board vice president and chair of its mentor committee. “Mentees learn what it takes to succeed in their field.”

In late summer, prospective mentors and mentees apply to the program via CST’s website. Committee members then review applications and match students with appropriate alumni. For example, students with an interest in drug discovery are matched with alumni working in big pharma. Students and mentors meet at an orientation session and, over the course of the academic year, get together to review career goals; strategize how to enter a particular industry; and discuss specific companies, graduate programs or hiring trends.

“Our success rests squarely on the shoulders of the alumni who built Owl to Owl,” says Szczepanski, who notes the committee is exploring how alumni from beyond the Philadelphia region can participate. “We want to reach more students, provide additional resources for their success and offer alumni another way to give back to Temple.”

Learn more about being a mentor at cst.temple.edu/owl2owl.

FLANK GIFT SUPPORTS FACULTY ENDOWMENT

A gift from William (BA ’58, Chem) and Sandra (BA ’56, Chem) Flank will be used to support the Dean’s Endowed Term Professorship Fund, which helps attract top researchers to the college.

The Flanks returned to CST for the dedication of faculty space named for them within the Institute for Genomics and Evolutionary Medicine, which is housed in CST’s Science Education and Research Center.

Dean Michael L. Klein, FRS, with Sandra (BA ’56, Chem) and William (BA ’58, Chem) Flank
**OWL CROWD CAMPAIGN SHATTERS GOAL**

This year, CST supporters contributed $5,210—more than $1,500 above goal—to help send six computer science students to the 2017 Grace Hopper Celebration of Women in Computing Conference, the world's largest gathering of women technologists.

CST’s supporters used OwlCrowd, Temple University’s online fundraising tool that offers an easy-to-use way to support student-led and educational activities at the College of Science and Technology. More than 30 alumni, friends, faculty and staff contributed to the effort. Corporate partners Elsevier, Fast Enterprise, PrintMail Solutions and Vanguard provided additional funding for students, and two CST students were awarded scholarships from the Grace Hopper conference. In total, 11 CST students attended this year’s conference, held in Orlando.

Highlighting the research and careers of women in technology, the Grace Hopper conference brings together the best minds in computing and encourages collaborative proposals, networking and mentoring for attendees. Female CST students regularly present their groundbreaking research, which gives them exposure to graduate programs, job prospects and international publications.

Over the past five years, the college has hosted seven OwlCrowd campaigns, raising more than $25,000—mostly through modest individual donations—to support educational opportunities for CST students. Learn more about how to support Temple at giving.temple.edu/OwlCrowd.

**SUPPORTING FIELD CAMP EXPERIENCES**

Victoria Boyt (BA ’66, Sc), a successful marketing and sales consultant and executive with a strong commitment to environmental issues, is supporting CST through a gift to endow the Gene C. Ulmer Undergraduate Support Fund. The fund helps geology and other Earth & Environmental Science students attend a summer field camp experience, which is critical to their professional development.

Boyt was president of V. Kaufman Enterprises, a marketing firm specializing in entrepreneurial ventures, and a national sales manager at PlayCable Company, a telecommunications joint venture of General Instrument and Mattel.

Boyt, founder and chair of the Environmental Commission of the City of Englewood, NJ, and board member of the Association of New Jersey Environmental Commissions and Flat Rock Brook Nature Association, returned to the college to lecture on career, business and environmental commitment.

To make a gift to the Gene Ulmer Fund and support field camp experiences for geology students, go to giving.temple.edu/givetoCST.

**TEMPLE’S FIRST KECK GRANT TO FUND SEARCH FOR DARK MATTER**

CST physicist Jeff Martoff is seeking to solve what the National Academy of Science has called the number one unanswered question facing astrophysicists today—What is dark matter?—with the support of a prestigious $1.2 million grant from the W. M. Keck Foundation, which funds pioneering efforts in the areas of medical research, science and engineering, and undergraduate education. This is the first time a Temple investigator has received a Keck award.

Although dark matter has not been directly observed, physicists believe it comprises most of the mass of the universe and exists in the vast darkness that surrounds galaxies. Evidence indicates that it is not even made of ordinary matter—protons, electrons and neutrons.

Current methods in the race to find dark matter include particle accelerators—the CERN Large Hadron Collider (LHC) in Switzerland is the largest—and sensitive detectors located in labs deep underground. Both methods target “weakly interacting massive particles” (particles known as WIMPs), which are predicted in elementary particle theories and are widely considered good candidates for making up the dark matter. Although more and more stringent WIMP searches have been done, they continue to come up empty.

Martoff will test a new technique and seek a different candidate for dark matter. With colleagues from the University of California, Los Angeles and the University of Houston, he is building a 12-foot-long “tabletop” spectrometer (compared to the 17-mile diameter of the CERN LHC collider) to search for the presence (or absence) of sterile neutrinos. These are as-yet undiscovered particles that theorists say should also exist, and if detected, would constitute the first visible evidence of a good candidate for a dark-matter particle.

Overall, Martoff’s work is expected to lead to a deeper understanding of particle physics and to finally identify the dark matter.
Steve Schnell (BA '14, Bio) is nearing completion of his doctorate at CST, after a U.S. Army career and seven years as a study coordinator with Charles River Laboratories.

Morgan Taylor (BS '14, CIS) is working for a national IT management consulting firm, CapTech Ventures Inc., as a consultant to a Fortune 50 telecommunications firm in Philadelphia. Taylor has been consulting project manager for more than two years with her telecommunications client. Prior to that, she worked for CapTech as a business analyst for a space and national-defense security client. “I’m always learning about how different businesses work and how technology can help them,” says Taylor. “I often go back to the CIS Department to engage with students, professors and alumni because the sense of community that CIS offers really helped build and develop me.”

Logan Wiest (MS '14, EES) is completing his PhD at Baylor University and had an article about the mystery of the massive death of Waco mammoths published in Palaios and featured in Scientific American.

David Dukes (BS ’15, MS ’17, EES) was awarded a Graduate Student Summer Fellowship from the National Science Foundation-funded Long-Term Ecological Research (LTER) program.

Christopher Conwell (BS ’16, EES) received his third outstanding poster award at the 2016 regional Geological Society of America conference in Albany, New York.

Roselyne Laboso (MS ’16, EES) studied geothermal systems as a fellow at the Lawrence Berkeley National Lab last year. She presented a paper on her research at the Stanford Geothermal Workshop.

Keep CST up to date! Email CSTalum@temple.edu to share your recent news and accomplishments.

2017–2018 CST ALUMNI BOARD MEMBERS

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IN MEMORIAM

Peter Chodoff (BA ’47, Bio) Andrew J. Varga (MA ’65, PhD ’70, Phys)
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Stephen A. Idzik Jr. (MA ’65, Phys)
Aron Cowen (BS ’17, Math/CIS)  
DELOITTE CONSULTING

Aron Cowen dedicated himself to Temple and in return he realized just how far it would take him. Cowen got involved early in his academic career through organizations such as the Association for Computing Machinery, Model UN and tutoring. That’s when he realized he had a variety of passions.

“I come from a long line of scientific minds with both parents and three grandparents having multiple degrees in various science disciplines,” Cowen says. “Having those role models helped me decide on majoring in not only math but also computer science. And even a minor in physics.”

Cowen was elected president of Temple Student Government for the 2016-2017 academic year, after holding the position of director of government affairs. He pushed hard for several important changes, like increasing university counseling spaces by 50 percent.

One of his best CST memories is working with Professor Boris Datskovsky. “He is a legendary mathematician,” Cowen says. “I learned so much from him because he brings so much excitement to the classroom.”

Cowen is now working for Deloitte Consulting. As a business technology analyst in Deloitte’s office focused on the federal government, he is advising agencies on implementing large-scale technological change. An Owl through and through, Cowen says he will be active in the Temple Alumni Chapter of Washington, D.C.

Cowen, who participated in CST’s Owl to Owl Mentor Program as a student, is looking forward to giving back to Temple. “I hope to have the opportunity to also mentor CST students,” he says. “I’ll tell them to ‘be more than just your major. Get involved.’”

—Nadia Whiting

Fiona Galzarano (BS ’17, Math)  
DEPARTMENT OF DEFENSE

One of the top three undergraduate majors in mathematics at Temple, Philadelphia native Fiona Galzarano, a Presidential Scholar and winner of the 2015 Most Promising Mathematics Major Award, has engaged in extensive undergraduate research.

As part of the CST’s Undergraduate Research Program, the computer science and Spanish minor tested an intelligent reasoning system under Associate Professor Pei Wang of the Department of Computer & Information Sciences.

At the 2015 Cornell University Summer Program for Undergraduate Research, she analyzed Apollonian gaskets with Professor Robert Strichartz; presented their results at a March 2016 American Mathematical Society meeting; and is working with him on a related paper.

Finally, Galzarano’s summer work as an applied mathematics intern with the Department of Defense in Maryland has resulted in a full-time job assisting the government with cybersecurity.

“Beyond specific formal proofs, Temple has given me the intuition to be able to figure out stuff on my own,” says the former vice president of Temple’s Association for Women in Mathematics chapter. “The job’s mostly computer science, but it will be ‘mathy’ computer science.”

—Bruce E. Beans

Nicholas Hestand (PhD ’17, Chem)  
UNIVERSITY OF CHICAGO

Nicholas Hestand can’t imagine a better graduate experience than his time at CST. ‘Some of my success has been due to hard work and some of it has been just luck, joining a fruitful project with Dr. Frank Spano,’ says Hestand, who was lead author or co-author of 12 published papers during his time at Temple. “I’ve had a great advisor and great lab mates, and I’ve learned a lot about research.

“Our research focuses on understanding the excited states of molecular aggregates and crystals, particularly in understanding what simple optical experiments, like absorption or photoluminescence, can tell us about a material’s properties,” says the recipient of both university and Francis H. Case fellowships. “For example, we’ve developed spectral signatures that allow us to predict whether a material would be good for transporting energy.”

While commercial applications are beyond the research in which Hestand was involved, the basic principles of organic electronics that he and Spano’s group explored ultimately could have applications for generating solar electricity as well as television and smartphone screens.

Hestand will next be investigating water as a two-year postdoctoral fellow at the University of Chicago’s Institute for Molecular Engineering.

“When I first came to Temple, my goal was to become a professor at a liberal arts institution where teaching would be my main focus,” Hestand says, “but during my time at Temple, I’ve fallen in love with research. Now my goal is to find a faculty position where I can do both.”

—Bruce E. Beans