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ENGINEERING



TRANSFORMATIONAL GIFT

College receives generous gift and new name

TRANSFORMATIONAL GIFT



For 128 years, the University of Utah's College of Engineering has been the state's premier research and educational institution for engineering and computer science. In January, the college got a major boost.

The college received a historic \$50 million gift from the John and Marcia Price Family Foundation that will benefit future students, educational programs, research centers, and entrepreneurship, as well as the construction of a new \$190 million computing and engineering building on the U campus. In November 2021, John and Marcia Price were the first to come forward and pledge significant funding for the new building. Realizing the positive impact this would have on Utah's technology and engineering sectors, they increased their commitment to \$50 million.

The college was renamed the University of Utah John and Marcia Price College of Engineering after a review and approval by the university's Board of Trustees at its meeting on Feb. 14.

"This generous gift from the Price family is transformational," said U College of Engineering Dean Richard B. Brown. "This is going to cause another inflection point in the ascent of the college and the growth of Utah's technology sector."

The gift, the largest in the college's history and one of the biggest for the university, was announced during an event Jan. 10 at the

Warnock Engineering Building on the U campus. Speakers included Gov. Spencer Cox, U President Taylor Randall, Dean Brown, John Price, his son Steven Price, Utah Senate President Stuart Adams, and Utah House Speaker Brad Wilson (all pictured above). A new logo for the college was also revealed.

"The University of Utah has an international reputation for innovation in engineering and computer science. Marcia and I want to help ensure that opportunity for this and future generations," said John Price. "Our gift to the College of Engineering is an investment, to provide education at the highest level of excellence, and to meet the engineering and computing needs for local and global demand. Additionally, these funds will strengthen, elevate, and expand the college's research and educational initiatives."

Of the \$50 million, an endowment of \$32.5 million will go to student scholarships, teaching labs and equipment, educational initiatives, and more. The endowment's discretionary funds will enable the college to react quickly to changes in teaching, research, and public service needs. The remaining \$17.5 million is reserved for the new John and Marcia Price Computing and Engineering Building. This six-story, 253,000-square-foot building, which is expected to begin construction in 2024, will enable the college to grow the number of graduates to an additional 500 per year and feed more highly qualified engineers into Utah's workforce for the state's rapidly growing engineering and computing sectors.



"This generous gift from the John and Marcia Price Family Foundation marks another significant milestone in our commitment to invest in students, research and programs that drive innovation," said U President Randall. "This investment in the education of engineering and computer science professionals will have exponential impact as they contribute economic and societal value to the state and the nation. It's a historic day for the U and we are grateful and inspired by the Prices."

In the last 20 years, the College of Engineering has experienced explosive growth as Utah's tech economy has become one of the nation's fastest rising. The number of engineering and computer science graduates has tripled while annual engineering-related research funding nearly quadrupled. In that same period, the number of tenure-track faculty has doubled.

John and Marcia Price

For more than 50 years, John and Marcia Price have helped shape Utah through their prolific business, philanthropy, public service, and community efforts. All of which have helped build and support the state's economy, arts, and higher education; paving the way for these sectors to thrive, setting the stage for this and future generations.

John Price is an American diplomat and former U.S. Ambassador to Mauritius, Comoros and the Seychelles. He moved to Utah as a teenager and earned a bachelor's degree in geological engineering

at the University of Utah in 1956. He started his career as the founder of a construction company, which evolved into a commercial real estate development firm and then into JP Realty Inc., which was listed on the New York Stock Exchange in 1994.

Marcia Price is a leader in the arts community, with a lifelong passion for the Utah Museum of Fine Arts where she serves as board chair. She has devoted herself to advancing the arts locally and nationally, having served in such positions as chair of the Utah Arts Council, board member of the National Committee for the Performing Arts at the Kennedy Center in Washington, D.C., and as a board member of the Utah Symphony and Utah Opera.

She received an Honorary Doctor of Fine Arts from the University of Utah in 2006. The UMFA building as well as the new University of Utah Theatre Arts building, and amphitheater are named to recognize the Price's contributions to the arts.



IEEE MILESTONE EVENT

It was like The Beatles reuniting . . . but for the world of computing. Ed Catmull. John Warnock. Jim Clark. Alan Kay. Ivan Sutherland. Martin Newell. They are just a handful of the luminaries in the late 1960s and 1970s who revolutionized computer graphics by inventing technologies that have aided countless industries today.

For the first time ever, these and other legends – all who attended the U's first computer science department at the time – reunited on campus March 23 and March 24 to commemorate their roles as 3D graphics pioneers and to celebrate the 50th anniversary of the U's Kahlert School of Computing.

This two-day event of keynotes and panel discussions, which was open to the public, is likely to never be repeated. To see videos of the panels and keynotes and to learn more about the historic gathering, go to www.price.utah.edu.

*"Development of Computer Graphics and Visualization
The University of Utah established a center of e
research with Advanced Research Projects Age
professors founded the pioneering graphics hard
by 1978, fundamental rendering and visualization
dissertations included the Warnock algorithm, G
Spline, and the Blinn-Phong reflection model. A
Atari, Silicon Graphics, Adobe, Pix
-March 2023, IEEE Milestone*



Pictured top, IEEE Milestone monument located outside the Merrill Engineering Building. Bottom left, John Warnock delivers a keynote. Bottom center, IEEE Milestone banquet at the Museum of Natural History.



ation Techniques, 1965-1978. In 1965, excellence for computer graphics agency (ARPA) funding. In 1968, two ware company Evans & Sutherland; n techniques disclosed in doctoral Gouraud-shading, the Catmull-Rom alumni founded companies include ar, and Netscape."

one Plaque



Top left, graphics legends Henri Gouraud and Ed Catmull share the stage during a panel discussion. Top right, former U computer science professor Ivan Sutherland on stage. Bottom, Martin Newell presents a replica of the famous "Utah Teapot" to Kahlert School of Computing Director Mary Hall and Dean Richard B. Brown.



Bottom left, Ivan Sutherland (left) and Jim Clark greet each other during the event. Bottom right, the Utah Graphics Pioneers panel featuring: (left to right) Alvy Ray Smith, John Warnock, Henri Gouraud, Ed Catmull, Henry Fuchs, Martin Newell, and James Blinn.

SCHOOL OF COMPUTING RECEIVES \$15 MILLION GIFT

The University of Utah's School of Computing has received a \$15 million gift from The Kahlert Foundation that will provide long-term funding to expand student support, bring in top faculty and accelerate industry collaborations. In recognition of the gift, the university has renamed the highly ranked institution to the Kahlert School of Computing.

"The University of Utah's computer science program is a legendary strength of both the school and the state, and we wanted to do our part to help that legacy continue," said Heather Kahlert, vice president of The Kahlert Foundation and a University of Utah alumna. "Our foundation is passionate about the value of STEM in improving lives and building for the future, and helping to ensure ongoing generations of diverse, top-level computer scientists in Utah is right in line with our mission."

Established in 1991 by Bill Kahlert, a philanthropist and co-founder of Evapco Inc., the foundation provides grants to non-profit organizations in the areas of health care, education, youth programs, veteran organizations, and human services. Originally established to support communities in the Maryland area, the foundation expanded its mission in 2015 to include Utah thanks to the influence and passion for philanthropy of Heather Kahlert, the founder's granddaughter.

The Kahlert Foundation has emerged as the leader of a new generation of philanthropy and a major voice for improving the lives and outcomes of students at the University of Utah. Including this most recent gift, the foundation has provided more than \$30 million in support across the university. Other recent projects funded and spearheaded by The Kahlert Foundation at the university include the Kahlert Initiative on Technology, a digital literacy certificate for all students, regardless of degree; Kahlert Village, a residential community for first-year students; scholarship support for student Athletes and David Eccles School of Business majors; and generous support for both the Spencer Fox Eccles School of Medicine Building and the Primary Children's and Families' Cancer Research Center at Huntsman Cancer Institute.

"The University of Utah is a pioneering program in computer science, and its deep value is clear in the fact that computer science has become the single largest major on campus," said U President Taylor Randall. "This generous gift from The Kahlert Foundation will ensure that the foundation and the School of Computing will continue to lead innovation and build the workforce that will continue to drive tech in Utah and around the world."

"The Kahlert Foundation's gift is timely as it will amplify our efforts to make our computing program welcoming and inclusive, through support for student



success programs and faculty development," said Mary Hall, director of the Kahlert School of Computing.

Since its founding in 1965, the School of Computing has been a center of excellence and innovation, helping to lead a revolution in the use of computers for graphics, data visualization, and human interface. The school housed one of the first four nodes of the ARPANET, the forerunner to the internet. Today, the school is one of the fastest growing on campus, with the number of students pursuing degrees or courses up 47 percent in five years. Nearly half of computer science degrees awarded by universities in the Utah System of Higher Education each year are from the University of Utah.

The School of Computing continues to build upon its stellar reputation by conducting leading-edge research across a broad range of computer science fields, including AI and machine learning, computer architecture, robotics, high-performance computing, human-centered computing, data science, cybersecurity and wireless communications.

Well-known alumni include Alan Kay, recipient of the Turing Award for envisioning the first graphical user interface at Xerox PARC; Ed Catmull, co-founder of Pixar; John Warnock, co-founder of Adobe Systems; Alan Ashton, founder of WordPerfect, Jim Clark, founder of Netscape and WebMD; and Telle Whitney, former CEO of Anita Borg Institute and co-founder of Grace Hopper Celebration of Women in Computing.

FACULTY AWARDS



FLORIAN SOLZBACHER

University of Utah Electrical and Computer Engineering Chair Florian Solzbacher has been named one of the newest Fellows of the National Academy of Inventors (NAI), the organization announced Dec. 8. He is the only U professor to be named to the new class. The NAI Fellows Program highlights academic inventors who have demonstrated a spirit of innovation in creating or facilitating outstanding inventions that have made a tangible impact on the quality of life, economic development, and the welfare of society. Election as a NAI Fellow is the highest professional distinction awarded to academic inventors.



JESSICA KRAMER

University of Utah biomedical engineering assistant professor Jessica R. Kramer is one of four national recipients of the Marion Milligan Mason Award, a bi-annual honor bestowed by the American Association for the Advancement of Science (AAAS). The prestigious award is given to promising early-career women in the chemical sciences. The AAAS, founded in 1848, is the world's largest general scientific society and publisher of the journal Science. Kramer was given the award and it's \$55,000 grant based on the candidate's "value of proposed research, their support of equity in chemical sciences, and the impact the award will have on their career."



KERRY KELLY

University of Utah chemical engineering associate professor Kerry E. Kelly is one of five national winners of the 2022 Women in Science Incentive Prize, an award that recognizes "innovative female scientists working on solutions to the most pressing environmental issues of our time." The prize is given out by The Story Exchange, a non-profit media organization dedicated to elevating women's voices through video, articles, and a podcast. Kelly was honored for her research on Utah's air quality and her work developing and building portable air quality sensors that regular consumers can purchase for their homes.



FANG LIU

Congratulations to University of Utah Materials Science and Engineering Distinguished Professor Feng Liu, who has received the Davisson-Germer Prize in Atomic or Surface Physics from the American Physical Society (APS). The prize, which recognizes outstanding work in atomic physics or surface physics, was given to Liu for "elucidating the influence of strain on epitaxy and nanostructure growth and using these concepts to predict surface-based topological-insulator materials." APS represents more than 50,000 members, including physicists in academia, national laboratories, and industry throughout the world.

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U AND AIR FORCE SIGN EDUCATION AGREEMENT

The University of Utah College of Engineering and the United States Air Force are proud to announce a new education partnership that will create valuable learning opportunities for students and research projects that can advance technologies from wireless communications and cybersecurity to robotics and composite materials.

A signing ceremony celebrating the agreement was held Nov. 18 in the Catmull Gallery of the Warnock Engineering Building. Representatives from Hill Air Force Base, the Air Force Materiel Command base located south of Ogden, were in attendance, including Brig. Gen. Richard Gibbs and Director of Engineering and Technical Management Thomas A. Lockhart Jr.

This education partnership allows university faculty and students to work more closely with Air Force researchers on a wide range of topics that could include data analytics, machine learning for materials discovery, prosthetics, nuclear engineering, additive manufacturing and more. Air Force personnel will also work with the U on developing new educational programs and will make laboratory personnel available to teach courses.

Meanwhile, university researchers will get access to otherwise unavailable resources from the Air Force such as state-of-the-art equipment, facilities, and expert knowledge. The agreement also provides opportunities for Air Force personnel to pursue certificates and master's degrees through online programs offered by the U, such as the Online Master of Science in Electrical and Computer Engineering.

"The U has faculty with expertise in areas that are of great interest to the Air Force. This educational partnership will help our faculty and Air Force



researchers become better acquainted, which will lead to more joint research," said Brown. "We also want their people to be more involved with our students. The partnership will be mutually beneficial."

"In addition to deepening our relationship with the U. of U. through mentoring, internships, and collaboration on defense laboratory projects, this is a great opportunity for the Air Force to find ways to transform our operations to better and more efficiently sustain our weapons systems and components in support of national defense," said Gibbs.

Already, many University of Utah faculty have or are now conducting research supported by the U.S. Air Force, such as projects to help clean up space debris orbiting Earth and research on the use of machine learning and multi-scale modeling for aircraft materials.

The agreement, which officially launched summer 2022, is scheduled to last five years.