

Dear Class of 2023,

Today is the day you've worked so hard toward — you are officially an engineer! I know I speak for the entire University of Washington Department of Electrical & Computer Engineering when I say I am very proud of you and everything you have accomplished.

Indeed, I commend all of you for facing challenges head on and finishing your degrees despite immense difficulties the pandemic and other national and world events have brought over the last few years. I believe our local, national and global communities will benefit greatly in the future from your grit and determination.

Now, as you take the next step in your career — whether it's within industry, academia or some other adventure — continue to remember what you've

learned at UW ECE. Pursue your work with the same passion and innovative mindset you applied as a student. Keep learning and feeding your curiosity. Know that you can accomplish great things by taking small steps and by relying on and supporting your family, friends and community.

Also remember that graduating means you are part of an elite membership — UW ECE alums. Many of our alumni have dedicated their careers to developing technologies that have had global impact, working for or alongside distinguished engineers such as Dr. Gabriela A. González, our guest speaker today. I encourage you to listen carefully to what people like Gaby have to say and use their experiences to guide and inspire you.

Finally, as you go on to build the future, I hope that you return to the UW to join us at one of our upcoming alumni functions and that you will keep us updated on your career development. Our door will always be open for you.

Once again, congratulations on a job well done!



Eric Klavins
Professor and Chair
UW ECE

ORDER OF EVENTS

Wednesday, June 7, 2023

Opening Remarks

Eric KlavinsProfessor and Chair

Graduation Speaker Dr. Gabriela A. González

(BSEE '92)

Student Speakers **Gen Sakura**

(BSEE '23)

Jan Silva

(MSEE '23)

Presentation of Graduates

Ph.D. Graduates

Master of Science Graduates

Bachelor of Science Graduates



GRADUATION SPEAKER

DR. GABRIELA A. GONZÁLEZ

BSEE '92
Director of Intel Corporation's
STEM Education Research Office

The University of Washington
Department of Electrical & Computer
Engineering is proud to welcome UW
ECE alumna Dr. Gabriela A. González
(BSEE '92) as honored guest speaker
for our 2023 graduation ceremony. Dr.
González is director of Intel Corporation's
Science, Technology, Engineering and
Mathematics (STEM) Education Research
Office. She also is a leading advocate
dedicated to improving diversity, equity,
and inclusion in engineering education
across the nation and around the world.

"We are very excited to have Gaby as our guest speaker for graduation," said UW ECE Professor and Chair Eric Klavins. "She is a leading executive at Intel, a valuable member of our UW ECE Advisory Board, and her tireless work over decades expanding STEM education quality and access for those from underrepresented groups is well known. Gaby is a truly outstanding UW ECE alum who demonstrates by example the kind of positive social impact an engineering career can have."

Dr. González' distinguished career at Intel has spanned over 20 years. In her current role, she oversees global STEM education research, policy, governance, initiatives and thought leadership across the enterprise.

Dr. González engages and collaborates with multiple stakeholders across Intel, as well as external partners and collaborators in academia, government, industry, and non-profit agencies to drive and influence inclusive and equitable STEM education outcomes. Prior to this role, she was the deputy director and operations manager of the Intel Foundation, where she led global strategies for STEM outreach and engagement for K–12 students, with particular emphasis on women and girls in STEM.

Earlier in her career, Dr. González served as a program manager for Intel Labs, leading Intel's strategic corporate relationships and academic programs with top American, European and Latin American research universities. She has held several engineering roles during her time at Intel, including the transfer of the latest microprocessor technologies from development to high-volume manufacturing and management of equipment capacity, labor, and operational productivity. Dr. González began her professional career at Xerox Corporation, where she held various manufacturing, engineering, and management leadership positions.

Dr. González is the former chair of the National Science Foundation STEM Education Advisory Panel, where she served from 2018 to 2022. She currently is on the board of directors for Project Lead the Way and the National Girls Collaborative Project. She is an active member of several professional, social, and cultural communities as a leader and role model, driving impact for underrepresented students and professionals in STEM around the globe. In addition to her bachelor's degree from UW ECE, she holds a master's degree in engineering and manufacturing management from Clarkson University, and a doctoral degree in human and social dimensions of science and technology from Arizona State University.

UNDERGRADUATE STUDENT SPEAKER

GEN SAKURA

BSEE '23

Gen Sakura (Bellingham, WA) will be graduating from UW ECE with a bachelor's degree in electrical engineering and a minor in entrepreneurship. Sakura was accepted into the University through the UW Academy for Young Scholars in 2019. In his first two years at the UW, Sakura worked under Professor Alan Leong to teach the "Creating a Company"



sequence at the UW's Foster School of Business while simultaneously spinning out his own startup in hotel logistics. Sakura entered UW ECE in 2021 and over the next two years became a vocal advocate for initiatives and programs that enhance the ECE undergraduate experience. He did this through multiple leadership roles: as an Events Coordinator for both the ECE Student Advisory Council and UW IEEE-HKN chapter, and as an ECE peer advisor. After graduation, Sakura plans to learn more about the inner workings of hardware and the potential applications of machine learning through a master's program in electrical engineering.

JAN SILVA

MSEE '23

Jan Silva (San Jose, CA) will be graduating from UW ECE with a master's degree in electrical engineering. Silva participated in the combined Bachelor of Science-Master of Science program at UW ECE and was advised by Professor Scott Hauck. She completed her bachelor's degree in electrical engineering in 2022, along with a minor in entrepreneurship. During her undergraduate years she was a CoMotion Mary Gates Innovation Scholar and participated in interdisciplinary research on medical devices for equity and for low-resource settings. She is passionate about peer mentorship and was heavily involved with the Engineering Peer Educator Program, eventually serving as a Lead Peer Educator during her senior year. Silva has also served as a graduate teaching assistant for these UW ECE courses: Digital Design; Sex, Gender, and Engineering; and Sensors and Systems. After graduation, Silva will be working as an electrical engineering Intern at Lumentum in San Jose, and she plans to continue her career in digital design and development of medical devices.





WENRUO BAI

"Arithmetic Combinations of Submodular and Supermodular Optimization and Submodular Generalized Matching for Peptide Identification in Tandem Mass Spectrometry"

Advised by: Jeffrey Bilmes

ALEXANDR BARYSHEV

"Developing a massively parallel yeast two-hybrid assay to characterize thousands to millions of pairwise proteinprotein interactions in a single pot"

Advised by: Georg Seelig

ERIC JOEL CARLSON

"The Design, Characterization, and Deployment of a Bipolar 0.5-mV-Minimum-Input DC-DC Converter with Stepwise Adiabatic Gate-Drive and Efficient Timing Control for Thermoelectric Energy Harvesting"

Advised by: Joshua Smith

SOUBHIK DEB

"Fair Ordering in Blockchains"

Advised by: Sreeram Kannan

ZHOURAN FANG

"Non-volatile programmable photonics based on phase-change materials"

Advised by: Arka Majumdar

SEOKHYEONG LEE

"Infrared Nanophotonics for smart imaging, night vision, and spectroscopy"

Advised by: Mo Li

ALAN D. LOGAN

"Triple-Resonant Frequency Conversion in Gallium Phosphide Integrated Photonic Resonators"

Advised by: Kai-Mei Fu

ZHEYI HAN

"MEMS-integrated Alvarez metalenses and large-area meta-optics"

Advised by: Karl Bohringer

GREGORY E. MOORE

"Enabling Electroceuticals"

Advised by: Joshua Smith

SWATI PADMANABHAN

"Some Problems in Conic, Nonsmooth, and Online Optimization"

Advised by: Yin Tat Lee

ALI SAFFARI

"Low-Power Wireless Video Streaming and Applications"

Advised by: Joshua Smith

MANUJA SHARMA

"Developing novel disease screening tools by measuring critical biochemical and physiological signals"

Advised by: Shwetak Patel and Eric Seibel

YIZHOU WANG

"Object 3D Perception via Camera-Radar Cross-Modality Learning for Autonomous Driving"

Advised by: Jenq-Neng Hwang

HAOTIAN ZHANG

"Inferring the 3D information from the Outside World Using Monocular Cameras"

Advised by: Jeng-Neng Hwang

LYUTIANYANG ZHANG

"Optimized Resource Allocation in Mobile Edge Communication, 5G Data Multiplexing, and WiFi Channel Access"

Advised by: Sumit Roy

YUXIANG ZHANG

"Pedestrian Path Network Mapping and Assessment with Scalable Machine Learning Approaches"

Advised by: Anat Caspi and Linda Shapiro

MAKSYM ZHELYEZNYAKOV

"Design and optimization of large-area meta-optics"

Advised by: Arka Majumdar

MASTER OF SCIENCE

SURUDHI ASOKRAJ

"A Multi-Domain Trojan Detector for Deep Neural Networks" Advised by: Radha Poovendran

MATT GUO

"RHL-Butterfly: A Scalable Virtualized Breadboard Solution for FPGAs and Remote Laboratories"

Advised by: Rania Hussein

FRANCISCO LUQUIN MONROY

"Developing Smartphone-Based 3D Scanning and Image Processing Techniques for Enhanced Wound Assessment and Ostomy Wafer Customization"

Advised by: Rania Hussein

ANOOP MYSORE NATARAJA

"FPGA-Accelerated Fuzzing for SoC verification"

Advised by: Michael Taylor

AUSTIN OURSLAND

"Electronic Mode Stirring Systems in Reverberant Cavity Environments for Backscatter Communication"

Advised by: Matt Reynolds

SANJUKTA ROYCHOUDHURY

"FPGA Design Upgrades for the ATLAS Pixel Readout System in the Large Hadron Collider"

Advised by: Scott Hauck

KATE SULLIVAN

"Using an off-the-shelf rigid gripper to grasp objects of different strengths and compliances"

Advised by: Howard Chizeck

Hashim Akbar

Ahmed Abdulsalam A Alhumoud

Destiny Alvarado Miranda C Anderson Andrew Annestrand Brian David Arnold Haleh Bahadori-Nejad

Harini Balasubramaniyam

Steve Barnaby Jr. Kushagra Bhatia Madison A. Bravo Jesslyn L. Budiman

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Mingfei Chen Pengfei Chen Po-Han Chen

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Jen-Hao Cheng Ryan Ching

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Harshil Dadlani Ian S. Davidson

Jonathan Michael Day

Vishnu Karthik Devarakonda Blake Lawrence Downey

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Alnur Elfatih Elberier

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Rebecca Jingyi Fairbanks

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Zihe Song

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