


GRADUATION 2021



**UW DEPARTMENT
OF ELECTRICAL
& COMPUTER
ENGINEERING**



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Dear Class of 2021,

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

Indeed, I commend you for facing the challenges of the last year head on and for finishing your degree despite the immense difficulties the pandemic has brought. I believe our university, our community, the nation and the world will benefit greatly from your grit and determination. Nice job!

Now, as you take the next step in your career, whether it's into industry, academia or some other adventure, remember what you've learned both in and out of the classroom. Always pursue your work with the same passion and innovative mindset you

applied as a student. Keep learning, keep asking questions, and keep feeding your curiosity. Know that you can accomplish great things by taking small steps and by relying on and supporting your community, your friends and your family.

Also know that graduating means you now join an elite membership — UW ECE alums. Many of our alumni have dedicated their careers to developing technologies that have had incredible positive social impact, working for or alongside distinguished engineers such as Henrique (Rico) Malvar, our guest speaker today. I encourage you to listen carefully to what people like Rico 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, whether it is virtual or in-person, 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!



A handwritten signature in blue ink, appearing to read 'E. Klavins'.

Eric Klavins
*Professor and Chair,
UW ECE*

2021

Schedule:

01 Opening Remarks

Eric Klavins

*Professor and Chair,
UW ECE*

02 Guest Speaker

Henrique (Rico) Malvar

*Distinguished Engineer,
Microsoft Research Enable*

03 Warm Wishes

Faculty and Staff

*UW Electrical &
Computer Engineering*

04 Virtual Procession

Ph.D. EE Graduates

MSEE Graduates

BSEE Graduates



Graduation Speaker:

Henrique (Rico) Malvar



UW ECE is proud to announce Henrique (Rico) Malvar, Distinguished Engineer at Microsoft, as our guest speaker for the 2021 UW ECE graduation ceremony.

Malvar is a research and industry leader who is known for his work in signal processing and data compression. He is also a strong advocate for expanding diversity in engineering and developing accessible technology. Malvar currently leads the Microsoft Research Enable group, which aims to empower people living with disabilities. His past roles include being Chief Scientist for Microsoft Research and Managing Director of Microsoft Research Redmond.

Malvar joined Microsoft Research in 1997 and founded the company's signal processing group, which developed new technologies such as media compression formats used in Windows, Xbox and Office, as well as audio technologies used in Windows, Xbox, Kinect and HoloLens. He also made key contributions to developing compressed file formats used by most web video services today. In addition to these notable professional accomplishments, he has published over 170 technical articles and has been issued over 120 patents.

Before joining Microsoft, Malvar was Vice President of Research and Advanced Technology at PictureTel (later acquired by Poly). Prior to that, he headed the Digital Signal Processing research group at Universidade de Brasília, Brazil. He received his Ph.D. in electrical engineering and computer science from the Research Laboratory of Electronics at MIT, a M.Sc. in electrical engineering from the Universidade Federal do Rio de Janeiro and a B.S. in electrical engineering from the Universidade de Brasília.

"We chose Rico as speaker because he embodies excellence and dedication to the profession of engineering," Klavins said. "He also exemplifies the kind of impact we hope our students will make on the world, engineering with social good in mind and helping to make technology accessible for all."

Malvar has been a tremendous supporter of UW ECE for many years, serving as a key connection between Microsoft and the Department, and generously giving his time, talent and expertise. He has been a UW ECE affiliate professor since 1999 and served as chair of the UW ECE Advisory Board from 2012–2019. He also served on the UW College of Engineering's Dean's Visiting

Committee from 2016–2019. In 2018, Malvar played a leading role in helping UW ECE to update its identity and change its name to better reflect the breadth of the Department. He continues to remain a pillar of support for UW ECE and is currently engaged with advising the Department on reputation-building initiatives.

Malvar is widely recognized for his leadership roles in an array of professional and academic associations. In addition to his involvement with UW ECE, he is a member of the U.S. National Academy of Engineering, the Washington State Academy of Sciences, the Brazilian National Academy of Engineering and the Brazilian Academy of Sciences. He is an IEEE Fellow and has received many awards, including a Technical Achievement Award from the IEEE Signal Processing Society and the 20th Century Landmark Award from the IEEE Seattle Section in 2014.

Malvar has a large number of achievements to his name and a wealth of experience to share. We look forward to hearing him speak at UW ECE Graduation about his long and illustrious career and the importance he places on giving back to others.

Ph.D. Graduates

**Eldridge E
Alcantara**

**"Direction-of-Arrival
Estimation Using Signal
Processing on Graphs"**

Advised by: Les Atlas & Shima Abadi

**Jingjing
Bu**

**"Geometry of
Feedback Control
and Learning"**

Advised by: Maryam Fazel & Mehran Mesbahi

**Yize
Chen**

**"Learning to Operate
a Sustainable
Power System"**

Advised by: Baosen Zhang

**Yueyang
Chen**

**"Development of active silicon
nitride nanophotonic platform
with emergent materials"**

Advised by: Arka Majumdar

**Kun-Da
Chu**

**"Area and Power Reduction
Techniques for Millimeter
Wave Phased-Array
Transceiver Front-ends"**

Advised by: Chris Rudell

**Vikram
Iyer**

**"Creating the Internet
of Biological and
Bio-Inspired Things"**

Advised by: Shyamanath Gollakota

**Yihan
Jiang**

**"Deep Learning
for Channel Coding"**

Advised by: Sreeram Kannan

**Chandrashekhar
Lavania**

**"Towards Unsupervised
Learning of Submodular
Functions for Summarization"**

Advised by: Jeff Bilmes

**Dianqi
Li**

**"Deep Generative
Models for Natural
Language Generation"**

Advised by: Ming-Ting Sun & Xiaodong He

**Shan
Lin**

**"Vision-based Surgical Instrument
Segmentation and Endoscopic
Sinus Surgery Skill Assessment"**

Advised by: Blake Hannaford

**Qiyu
Liu**

**"Integrated Acousto-optic
Devices based on
Brillouin Optomechanics"**

Advised by: Mo Li

**Yao
Long**

**"Voltage Regulation for
Distribution Networks with
Smart Photovoltaic Inverters"**

Advised by: Daniel Kirschen

**Sachin
Mehta**

**"Efficient Deep
Learning for Visual
and Textual Data"**

Advised by: Hannaneh Hajishirzi & Linda Shapiro

**Andrew
Pace**

**"Stepping Towards Control of
Systems Undergoing Impact
for Legged Locomotion"**

Advised by: Samuel Burden

**James D
Rosenthal**

**"The NeuroDisc: A Wireless Neural
Recorder Leveraging Ultra-Low-
Power Backscatter Communication"**

Advised by: Matt Reynolds

**Chenxin
Su**

**"Time-domain analysis of
multiple scattering effects on
the radar cross section (RCS)
of objects in a random medium"**

Advised by: Yasuo Kuga

**Trang Thi
Minh Tran**

**"Neural Models for Integrating
Prosody in Spoken
Language Understanding"**

Advised by: Mari Ostendorf

**Victoria
Zayats**

**"Leveraging Naturally
Occurring Structure in
Language Processing"**

Advised by: Mari Ostendorf

MSEE

Graduates

With Theses:

Donavan Martin Erickson

“Development of a High-Speed Hit Decoder for the RD53B Chip”

Advised by: Scott Hauck

Cuinn Rios Fey

“Histogram Matching to Reduce Acoustic Mismatch in Automatic Speech Recognition”

Advised by: Les Atlas

Maxim Amon Karrenbach

“Gaze2Grasp: Vision-based system for pre-grasp prosthesis control”

Advised by: Eric Rombokas

Sripathi Muralitharan

“TinyParrot: An Integration Optimized Linux Capable Host Multicore”

Advised by: Michael Taylor

Shashank Vijaya Ranga

“ParrotPiton and ZynqParrot: FPGA Enablements for the BlackParrot RISC-V Processor”

Advised by: Michael Taylor

Kelvin Lin

“Convolutional Layer Implementations in High-Level Synthesis for FPGAs”

Advised by: Scott Hauck

Trisha Ray

“Residential Rooftop Solar Equity in Washington State.”

Advised by: Daniel Kirschen

Ali Saffari

“WideScatter: Toward Wide Area Battery-Free Wireless Sensor Networks”

Advised by: Joshua Smith

Felix Schwock

“Statistical Analysis of Wind and Rain-generated Ocean Ambient Noise in the Northeast Pacific Continental Margin”

Advised by: Shima Abadi

Jeffrey Thomas

“Fringing Electric Field Sensors for the Detection of Incipient Thermal Damage in Composite Materials”

Advised by: Alex Mamishev

Without Theses:

Justin Agus

Eldridge E Alcantara

Faisal Fahad A Alsallum

Doruk Arisoy

Hannah Arntson

Christian Ayele

Agustin Banda

Chenyang Bao

Timothy P Bayliss

Mukund Bharadwaj

Sabrina Bhattarai

Ermias Zegeye Biru

Josef Borrayo

Tyler Alexander Bowen

Amar Brar

Joseph Bruckner

Anthony Calvo

Gorkem Caylak

Pranav Chandran

Karan Anil Chauhan

Yujie Chen

Yetao Chen

Yu-Chia Chen

Zachary Y Cheung

Rey Ching

Baemin Chung

Karina Cisneros

Kenneth Collins

Russell Deguzman
Teresa Despres
Dalin Du
Taylor P Fairchild
Shengwen Fang
Erica Jamie Flores
Jonathan Gerard
Garrett Giddings
David Goniodsky
Kyle McLaren Hadley
Andrew Ray Hall
Sangwook Han
Rajendra Surendra Hathwar
Paul Heng
Miguel Hernandez
Jiabin Hu
Runqiu Hu
Negar Imani Hosseinabad
Haorui Ji
Mitchell D. Johnson
Anuja Prakash Kalekar
Mulugeta K Kembata
Dylan Kleist
Junnan Kou
Benton Andrew Kwong
Steven Robert Lambert
Zhichao Lei
Songchun Li
Wei-Ning Liang
Yuan Liao

Kylie S Lim
Yang-Jie Lin
Chang Liu
Chia-Lin Liu
Mengxin Liu
Yuchong Liu
Yufei Liu
Kenan Lv
Anup Manandhar
Kalyani Sunil Marathe
Richard Marshall
Ryan McClelland
Joshua McCormick
Jacob Daniel Mendez
Nidhin U Menon
Mrinalini Mohanram
Pantha Moni
Kyle Patrick Mulvaney
Thomas Nevitt
Andrew Anh Quan Nguyen
Hussein Idris Noor
Neema Noori
Charles Louis Jr Opie
Chaitanya Paikara
Geo Palakunnel
Jun Hyeon Park
Emily Elisabeth Parry
Hwai-Jin Peng
Jacob Peplinski
Niraj Mukund Porecha

Taylor Allan Rau
Mitas Ray
Maral Rodriguez
Allen Rodriguez-Silva
Anthony Rogers
Miller Sakmar
Aster Schmidt
Jared Ross Schwartz
Ethan Scott Sharratt
Xinyu Shi
Rajiv Kumar Singh
Vikram Ravi Sringari
Annelisa M Sturgeon
Ajhita Shry Subramanian
Murugiah Kandasamy
Yi-Ting Sun
Xun Sun
Mahima Sunny
Abdulazeem Syed
Sairam Tabibu
Zheng Hong Tan
Andrew Harrison Tanasse
Vineetha Thomas
Diman Todorov
Kasraa Sahand Torkzadeh
Phillip Tran
Nissa Brianne Van Meter

Delanie D Vidales
Nina Vincent
Jieling Wang
Xinyi (Sharon) Wang
Yilin Wang
Yiren Wang
William Douglas Wright
David Acob Wu
Fei Wu
Thushara Maria Xavier
Wenbo Xu
Kedi Yan
Cheng-Yen Yang
Chiao-Tung Yang
Brandon Kentaro Yee
Ya Yi
Fucheng Yin
Haotian Yuan
Rex Zhang
Peiran Zhang
Tiankai Zheng
Aotian Zheng
Chufu Zhou
Jian Xiong Zhou
Qishi Zhou
Baohua Zhu
Mohammad Daniyal Zulfiqar

BSEE

Graduates

Jinseong Ahn
Christopher Alexander
Rafael Antonio Laya Alfonso
Chase Almond
Miranda C Anderson
Samuel Lee Anthony
Brian David Arnold
Lawrence Aguirre Atienza
Touraj Azmoudeh Matanagh
Ishaan Bhimani
Cai Julijan Biesinger
Nicolas Boye
Richard Brereton
Megan N Bui
Leona Josephine Burk
Austin Chan
Christian Chavez

Hongliang Chen
Qihuang Chen
Yangyu Chen
Lauren Jolie Choquer
Michelle E Chuang
James William Clough
Benjamin Jordan Cooper
Jade Cutter
Negin Darabi
Tyler O Darby
Rouen R. de la O
Chase Austin Deitner
Wanren Du
Amelia Kay Quinn Dumovic
Alwaleed Khaled El-Himri
Austin A Faux
Shahrzad Fegghi

Justin Adam Feng
Michael William Fiscus
Charlie Fisher
Shawn W Fisher
Neil Patrick Flodin
Bea Eloissa Golla Flores
Hans Theodore Gaensbauer
Kaijun Gao
Danielle Marie Garrod
Ephrem Getachew Gebre
Jacob Edward Gervais
Mryam Isak Girmay
Apurv Goel
Hanwen Guo
Devyansh Gupta
Diana Victoria Haass
Kyle Hammond
Samantha Ivy Heilman
Kelly Ho
Roe Horowitz
Jay Houppermans
Alex Chia-Fu Hsu
Huan-En Hsu
Jordan Justin Hsu
Hao-Wei Huang
Zixin Huang
Nicholas B Iaroslavtsev
Cindy L Imm
Siddharthsinh Dipaksinh Jadav
Yunzhang Jiang

Shengwen Jin
Erik Johnson
Trager Joswig-Jones
Woojin Jung
Yeehyun Jwa
Kushaun Kak
Tyler Andre Kann
Aditya Karan
Grace A Wanjiru Kariuki
Ashiqul I Kazi
John Swanman Keller
Bilal Khalif
Usman Mohammad Khan
Nolan Kim
Samuel Y Kim
Cedric Wei Xiong Kong
Youssef Lahrichi
Anh H Lam
Leo Jianpeng Lam
Christian Lancaster
Yuk Tong Lau
Molly Le
Kang S Li
Yuhang Li
Kevin Liang
Umair Liaqat
Jia-You Lin
Yang Liu
Zhuoyin Long
John Arthur Lounsbery

Eduard B Luca
Francisco Luquin Monroy
Zachary A Lynch
Hang T Mai
Ricardo Maria
Jordan A Mark
Milo Martin
Anatoliy Yakovlevich Martynyuk
Dakota Austin Matthews
Joshua H Mauer
Morgan Elizabeth McCandless
Evan Arnold Mickelson
Ikram A Mohamed
Parashar Mitradutta Mohapatra
Michael Patrick Moran
Emela V Moreyra
Trevor Mace II Morrow
Michael Muster
Eric James Mutschler
Alex James Nagy
Aravind Narayanan
Dai Quang Nguyen
Thao T Nguyen
Daniel Ong
Jadon C Orji
Veen Oung
Matthew C Panipinto
Michael Joonwoo Park
Ryan D Park
Daniel Robert Paulson

Collin Daniel Pernu
Tanner Mark Peterson
Tanner Poling
Chujun Qi
Feifan Qiao
Baotran Ngoc Quach
Josue Quintana
Jorge Alan Reyes
Seth Benjamin Richards
Nicholas Righi
Craig Finlay Robertson
Ryan Luan Ros
Tyler Titani Roth
Aaron Michael Shappell
Ryan Kelly Shappell
Arthur Alvarenga Sherwood
Julia H Shettler
Nathan Shih
Aidan Patrick Short
Dale A Simpson
Sejal Singh
Alaa Sleek
Anton N Soderqvist
Kristiana Mihoko Soranaka
Jared T Stever
Matthew Anthony Sullivan
Jiacheng Sun
Henok Taffere
Jamison Philip Thorup
Matthew K Trahms

Justin Fay Tran
Peter Tien Tran
Uyen Tuong Tran
Dario Roman Velasco-Roadarmel
Heran Wang
Ryan Wang
Xiaoyu Wang
Alyssa M Weed
Brendan Michael Weibel
Sherman N White
Tyler Wilson
Jonathan Wong
Winston C Wong
Yan Khan Fergus Wong
Jungi Wu
Nianqing Wu
Yifu Wu

Cameron J Wutzke
Ziyi Xie
Simeng Xu
Fan Yang
Pengyu Yang
Wenxuan Yang
Xiaotong Yang
Yunze Yang
Zeyu Ye
Matthew Yerich
Muhamaiti Yesibao
Christopher Yoo
Michael Yuen
Yifan Zhang
Zhaojun Zhang
Keyi Zhou
Zhuoran Zhou
Shizun Zou

Congrats

Class of 2021

UW ELECTRICAL & COMPUTER ENGINEERING





ELECTRICAL & COMPUTER
ENGINEERING

Graduates create the future!

STAY IN TOUCH!



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