

# 2020

## GRADUATION CEREMONY



ELECTRICAL & COMPUTER  
ENGINEERING



# CHAIR'S MESSAGE

## Dear Class of 2020,

Today is the day you've worked toward so hard. You have become engineers! I know I speak for the entire University of Washington Department of Electrical & Computer Engineering (UW ECE) when I say I am proud of you and all that you have accomplished.

These are trying times, as I am sure you are well aware. Your community, nation and world needs people such as yourself to be leaders, engineering solutions to the many challenges we collectively face.

As you take the next step in your career, whether it is into industry or academia, I know you are more than ready to step-up to meet those challenges. Personal satisfaction and accomplishments will surely continue to follow you if you face these obstacles undaunted, pursuing your work with the same passion and innovative mindset you applied to your courses.

This next step also means that you join an elite membership – UW ECE alums. Your colleagues in this cohort include distinguished engineers such as Booga Gilbertson, our graduation keynote speaker today.

You have the opportunity to continue to stay connected to UW ECE after graduation. Our department is committed to supporting our alums through networking events, speaking engagements and opportunities to hear about our latest research developments. Whether it be virtual or in-person, we hope you'll keep us updated on your career. We love hearing about your success. Follow us on social media and attend the next ECE alumni event and keep connected to the UW ECE community.

## Congratulations!



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

**Eric Klavins,**  
**Professor and Chair**





## OPENING REMARKS

*Eric Klavins, Professor and Chair*

## GRADUATION SPEAKER

*Ms. Booga Gilbertson*

## WARM WISHES

*Faculty & Staff*

## VIRTUAL PROCESSION

*Ph.D. EE Graduates*

*MSEE Graduates*

*BSEE Graduates*



# THE SCHEDULE





## KEYNOTE SPEAKER

A longtime supporter of the ECE department, Gilbertson served on the ECE Advisory Board from 2012-2015 and on the Electric Energy Industry Consortium (EEIC) from 1995-2005, and has also been a regular speaker to ECE students about her career in classes such as the Leadership Seminar Series and Introduction to Professional Issues. Gilbertson is grateful for the strong educational foundation she received at UW ECE, which has opened many doors for her throughout her illustrious career.

As senior vice president and chief operations officer for Puget Sound Energy, Booga Gilbertson is responsible for electric and gas operations, including emergency response, maintenance and construction, grid modernization, electric and gas system operations and dispatch, system planning, project management and engineering. A passionate advocate for safety, she is responsible for safety operations and culture across the company. Since joining PSE, Booga has held a broad range of engineering, operations and management positions in planning, asset management, gas and electric design engineering, performance measurement, budgeting, project management, construction and maintenance, 24-hour control center operations, labor relations, technology and emergency response management.

In addition to her responsibilities at PSE and her volunteer roles at UW, Booga also serves as chair of the board of directors of the Western Energy Institute and on the Washington State University Electrical Engineering and Computer Science Executive Council. Additionally, she is the past chair of the Edison Electric Institute's National Response Executive Committee.

Her work leading teams through complex, high stakes problem solving is what built her reputation as a highly effective and successful leader in the power industry. We look forward to hearing how lessons from her career can help our students stay resilient during these challenging times.

# BOOGA GILBERTSON



"Frequency Stability in Low-Inertia Power Systems"

**ATINUKE ABOLAJI  
ADEMOLA-IDOWU**

Advised by Baosen Zhang

"Equitable Network Modeling and Facilitation of Diverse Modes of Built Environment Pedestrian Navigation"

**NICHOLAS J. BOLTEN**

Advised by Eric Klavins & Anat Caspi

"Understanding Interaction: Unraveling the Mysteries of the Mind Using Virtual Reality"

**DAVID E. CABALLERO**

Advised by Eric Rombokas & Blake Hannaford

"Unsupervised Representation Learning with Interactive Language"

**HAO CHENG**

Advised by Mari Ostendorf

"Computational Imaging Using Multifunctional Wavefront-coded Dielectric Metasurfaces"

**SHANE A. COLBURN**

Advised by Arka Majumdar

"A Multi-Time over Threshold Data Acquisition System for Silicon Photomultipliers based Positron Emission Tomography Imaging"

**SAMRAT DEY**

Advised by Jacques Rudell

"Applications of Statistical and Machine Learning to Civil Infrastructure"

**CHASE P. DOWLING**

Advised by Baosen Zhang

"Trajectory Tracking Wide-Area Control for Power Systems"

**RYAN THOMAS ELLIOTT**

Advised by Daniel Kirschen & Payman Arabshahi

"Implementing Binary Neural Networks"

**JOSHUA W. FROMM**

Advised by Shwetak Patel

"Towards Multi-Person 3D Pose Estimation in Natural Videos"

**RENSHU GU**

Advised by Jenq-Neng Hwang

"On Numerical Methods for Efficient Deep Neural Networks"

**CHONG LI**

Advised by Chuan-Jin Richard Shi

"Deep Generative Models for Natural Language Generation"

**DIANQI LI**

Advised by Ming-Ting Sun

"Self-supervised Learning and Domain Adaptation for Visual Analysis"

**KEVIN LIN**

Advised by Ming-Ting Sun

"Robust Vision-Aided Self-Localization of Mobile Robots"

**KYLE MARTIN LINDGREN**

Advised by Blake Hannaford

"Electromechanical Brillouin Scattering and Reinvention of Integrated Acousto-optical Devices on CMOS-compatible Platforms"

**QIYU LIU**

Advised by Mo Li

"Extracting Information from Clinical Text Using Multi-task and Active Learning"

**KEVIN LYBARGER**

Advised by Mari Ostendorf

"Generalizable Methodology for Measurement and Analysis of Nutritional Intake"

**SEPEHR MAKHSOUS**

Advised by Alexander Mamishev

"Computational Problems for RNA-Seq Data Analysis"

**SHUNFU MAO**

Advised by Sreeram Kannan

"Unsupervised Learning : Model-guided and Model-agnostic Approaches"

**SUDIPTO MUKHERJEE**

Advised by Sreeram Kannan

**PH.D.  
GRADUATES**

"Control through Contact for Legged Locomotion"

## ANDREW PACE

Advised by Samuel Burden

"Data-driven Control of Powered Prosthetic Limbs using Inter-joint Coordination and Computer Vision"

## VIJETH RAI

Advised by Eric Rombokas & Howard Chizeck

"Molecular Computers Built From DNA Components"

## SUNDIPTA D. RAO

Advised by Georg Seelig

"Understanding User-perception of Sleep to Inform Sensing and Provide Actionable Feedback"

## RUTH VINISHA RAVICHANDRAN

Advised by Shwetak Patel & Julie Kientz

"Physics-based Security Analysis of Controller Area Network Protocols"

## SANG UK SAGONG

Advised by Radhakrishnan Poovendran & Linda Bushnell

"Learning and Control for Energy Systems"

## YUANYUAN SHI

Advised by Baosen Zhang

"Smart Step: Wearable Mobility Assistance using Machine Learning and Haptic Feedback"

## ASTRINI SIE

Advised by Eric Rombokas & Blake Hannaford

"Time-domain Analysis of Multiple Scattering Effects on the Radar Cross Section (RCS) of Objects in a Random Medium"

## CHENXIN SU

Advised by Yasuo Kuga

"Vision Based Surgical Tool Tracking and Force Estimation with Robot Kinematics Prior"

## YUN HSUAN SU

Advised by Blake Hannaford

"Digital Microfluidic Systems for Self-cleaning Surfaces and Lab-on-Chip Devices Using Anisotropic Ratchet Conveyors"

## DI SUN

Advised by Karl Böhringer

"Measuring 3D-Length from an Image Using Robust and Accurate Curve Estimation"

## MAOLONG TANG

Advised by Ming-Ting Sun

"Deep Learning with Abstention: Algorithms for Robust Training and Predictive Uncertainty"

## SUNIL THULASIDASAN

Advised by Jeffrey Bilmes

"Neural Models for Integrating Prosody in Spoken Language Understanding"

## TRANG TRAN

Advised by Mari Ostendorf

"Integrating Bidirectional Brain-Computer Interfaces in Low-Voltage CMOS"

## JOHN PATRICK UEHLIN

Advised by Jacques Rudell

"Developing Massively Parallel Reporter Assay for Studying Gene Regulatory Elements"

## BAN WANG

Advised by Georg Seelig

"Theoretical Simulation of the Conductive Filament in the Resistive Switching Memory"

## XU XU

Advised by Manjeri Anantram

"Leveraging Naturally Occurring Structure in Language Processing"

## VICKY ZAYATS

Advised by Mari Ostendorf

"Building Modular, Human-Interpretable AI Systems with Behavior Trees"

## DIANMU ZHANG

Advised by Blake Hannaford

"Integrated Phase-Change Silicon Photonic Platform for Nonvolatile Programmable Photonics"

## JIAJIU ZHENG

Advised by Arka Majumdar

"Metal Halide Perovskite Light-emitting Materials and Devices"

## CHEN ZOU

Advised by Lih Lin

## MSEE GRADUATES W/ THESES:

### **JACKIE BAUM**

Advised by Daniel Kirschen

### **NIHARIKA MITTAL**

Advised by Scott Hauck

### **RICHA RAO**

Advised by Scott Hauck

"Power System Risk Analysis Under Increasing Levels of Variable Energy Resource Integration"

"Development of an FPGA Emulator for the RD53B Chip"

"Implementing Long Short-Term Memory Neural Networks in High-Level Synthesis Targeting FPGA"

## MSEE GRADUATES:

### **NEERAJA ABHYANKAR**

### **MARELDI PARAS AHUMADA**

### **TREVOR J. BERGSTROM**

### **NICHOLAS BOLTEN**

### **ERMIAS ZEGEYE BIRU**

### **VICTOR CANNESTRO**

### **YI-CHENG CHEN**

### **YIDONG CHEN**

### **DREW WILLIAM CLARK**

### **KATHLEEN M. CRISS**

### **DYLAN MATHEW DAY**

### **PAVEL DERLYUK**

### **TIMOFEY NIKOLAYEVICH DUKHNOVSKIY**

### **JEETENDRA K. DUWADI**

### **MUSTAPHA ENNAIMY**

### **JERROLD OBERT BIGFORD ERICKSON**

### **WESTON STEVEN FIALA**

### **ELLORY FRENEAU**

### **XIANGYU GAO**

### **XINBEI GONG**

### **RENSHU GU**

### **ELLIOTT GUDNI GUNNARSSON**

### **BERNABE ARROYO GUZMAN**

### **GRANT HADLICH**

### **AKRAM HAMDY**

### **DANIEL HANISH**

### **JASON ALLEN HARRIGAN**

### **CHARLES HEFFELFINGER**

### **SHOU-EN HSIAO**

### **JEFF A. JOST**

### **AMLAN RANJAN KALITA**

### **ZERINA KAPETANOVIC**

### **AKRAM KASSAY**

### **ZACHARY RYAN KISSLER**

### **JAMES LEROY KOEHLER**

### **JACOB LEWIS**

### **BINGKUN LI**

### **YIMENG LI**

### **JOSEPH E. LINDEROTH**

### **XIULONG LIU**

### **JESSE LU**

### **KUAN HSUN LU**

### **XIAOYU LU**

### **YEYUN LU**

### **DANIEL CATALIN LUNCASU-ROLEA**

### **LONG HOANG LY**

### **GIORGIO MINAI**

### **HIRALBEN PRAFULKUMAR MISTRY**

### **PIROUZ NAGHAVI**

# MSEE GRADUATES



**MICHAEL WILLIAM  
O'DELL**

**MARK WILLIAM  
ODENDAHL**

**JIAQI PENG**

**PINZHU QIAN**

**RAHUL  
RAMANARAYANAN**

**ASHIKA ROHIT**

**DEVIN MICHAEL**

**JASON A. SCOTT**

**NARENDRA  
SHIVARAMAN**

**CHRISTOPHER M.  
SHORT**

**LANE SMITH**

**KAZI SABRINA SONNET**

**JACOB STEIN**

**ANNELISA M.  
STURGEON**

**CONNOR PATRICK  
SULLIVAN**

**YI-TING SUN**

**CHARUMATHY  
SUNDARAM**

**FORUM VINOD**

**SUTHAR**

**DANIEL TABAS**

**TRISTAN TAN**

**LINGSHU TANG**

**TYLER TERHUNE**

**EARNIE TSAI**

**BANDHAV VELURI**

**YUE WANG**

**SITING WANG**

**RAN WEI**

**JOHN WOLFE**

**ANDREW JOEL  
WOLFRAM**

**GARY WU**

**LIANG XIANG**

**MINGYI YANG**

**YUNYI YANG**

**SHIH-HAO YEH**

**KRISTY YEUNG**

**XAVIER YUAN**

**REX ZHANG**

**TIANYI ZHANG**

**FATIMA ZOLFAGHAR**





**SHEERSHAK AGARWAL**  
**KANIKA AGGARWAL**  
**ARMIN AGNISH**  
**DAVID EDWARD ALBERS**  
**DORUK ARISOY**  
**VICENTE ARROYOS**  
**AUGUST JOSEPH**  
**AVANTAGGIO**  
**BENJAMIN EDWARD**  
**AZEVEDO**  
**AISHA BINTI AZMI**  
**ROSS ANDREW**  
**BAJOCICH**  
**COLE DAVID BALLARD**  
**BRANDON BEATY**  
**ANTON BEZRUCHKIN**  
**ANDRE EDWARD**  
**BLAND JR.**  
**SYDNEY BOLTON**  
**JADEN JOSIAH**  
**BOTTEMILLER**

**RICHARD SCOTT**  
**BURBERRY**  
**ERIKA C. BURK**  
**JUNHONG CAI**  
**BERNARD CALIMLIM**  
**YIBO CAO**  
**ZIHAN CAO**  
**JONATHAN CASAMAYOR**  
**LOK CHAN**  
**CHENGHAO CHEN**  
**HUIHAO CHEN**  
**JOHN CHEN**  
**VILLY CHEN**  
**GAVIN CHENG**  
**JENNY CHO**  
**JEONGHYUN CHOI**  
**MARCUS JEREMY HON**  
**WAI CHU**  
**CHIVA CHUN**  
**ZHONGYI DAI**  
**IAN DAVIDSON**

**ZACHARY POHAIPUNI**  
**DELA CRUZ**  
**FAN DENG**  
**JAKE T. DETWILER**  
**JONATHAN ANDIEN DO**  
**KEITH THOMAS**  
**DUCHARME**  
**DONAVAN MARTIN**  
**ERICKSON**  
**MINGCUN FAN**  
**TIANQI FAN**  
**TONY FAUBERT**  
**KAIDEN JAMES FIELD**  
**CHARLIE FISHER**  
**BRENDAN MICHAEL**  
**FLYNN**  
**MATTHEW SCOTT FODE**  
**DANIELLE FUNG**  
**BEREKET GEREMEW**  
**GAGURO**  
**MOHAMED M. A. GNEDI**  
**IRINA GOLUB**  
**ZOE KATHRYN PINDAR**  
**GREGORY**  
**ASHLEY PAIGE GREY**

**DANIEL STEPHEN**  
**GRIMM**  
**JONA MARIUS GRODECKI**  
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**ISFAN B. GUNAWAN**  
**ZHENGHAO GUO**  
**ABHYUDAYA GUPTA**  
**RAYMOND NICHOLSON**  
**GUTHRIE**  
**ANDREW RAY HALL**  
**CORWIN AKERU**  
**HANSEN**  
**GRIFFIN MICHAEL**  
**HARDY**  
**TAYLOR MICHAEL**  
**HARTLEY**  
**HANNAH HO**  
**JOSEPH QUOC HO JR.**  
**WILLIAM LIN HUANG**  
**NICK RICHARD HUBER**  
**MICHAEL BRYAN**  
**HUMPHREY**  
**HSUAN-CHUNG HUNG**  
**VANESSA LYNN HUNT**  
**CHASE PARKER HUNTER**

# BSEE GRADUATES

LIBAN HUSSEIN  
JOHN BRANDON IAMS  
ABDIASIS SALAD  
IBRAHIM  
ADIL ISLAM  
JOSE M. JAIME  
ADITYA JAIN  
TAO JIN  
ALYSSA ROSE  
JOHNSEN-KROGH  
KYLE JOHNSON  
JEFF JOSEPHSEN  
DAVID RENARD JOSLIN  
EMIL NICHOLAS KANADI  
ALEXANDER JOSEPH  
KARDOKUS  
MAXIM AMON  
KARRENBACH  
GURTARANJIT KAUR  
MICHAEL THOMAS  
KENNY  
NIMA JOSHUA  
KHERADPOUR  
DEAN YAR KHORMAEI  
EUNTAE KI  
DONGHYUK KIM

SEOKJOONG KIM  
HUI JIE KOH  
EMILY FANJIA KONG  
RUSSELL ENG KOOK  
BONAN KOU  
TYLER C. LA  
DAMOND LAI  
DYLAN VAN LAM  
JESSICA YUAN-ANN LAN  
CARLY STRASSER  
LANGER  
ZUHAIR LATEEF  
ZECH LATIMER  
SUN HONG LAY  
ALEXANDER CHI LE  
KHANG LEE  
MICHAEL LEE  
ELTON SHEN LI  
SHANGRONG LI  
YINGHAO LI  
YULAI LI  
ZHIYAO LI  
EDDY ZEXIN LIANG  
RYAN LIANG  
JING JIE LIM

KYLIE S. LIM  
SCOTT LIN  
YING CHENG LIN  
BRIAN JUNCHI LIU  
BENSON LIU  
XINLU LIU  
RUITAO LONG  
DARREN LU  
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SUSANNA LU  
JACK WENJIE MA  
NICOLE PILAR MACIAS  
AMEER TALAL  
MAHMOOD  
JAMES LAWRENCE  
MANN  
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KATIE ALLISON MASKAL  
NICK MATHEWS  
ANABEL ROSE  
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MILLER  
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BEN NA  
ANOOP NARRA  
NATHAN TAIE NESS  
GRANT ROBERT  
NEUMAN  
ELIOT NICHOLS  
OLCE OKTAVIA  
BERNARDO OLIVAS  
APRIL MARIE OPSVIG  
CAOILIN YURIKO  
O'RILEY  
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KATIE OLIVIA JUHYUN  
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JIARONG QIAN  
LISA HUA QING  
SANDEEP JAYANTHI  
RAMANATHAN  
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ANGIE CRYSTAL THAI  
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PHUC HOANG TO  
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DANIEL SEAN  
WADHWANI  
LIRUI LEROY WANG  
RICHARD WANG  
SIMON SHENMENG  
WANG  
YIREN WANG  
DERRICK WANG  
DALLAS WARREN  
ERIK RYAN WHEELER  
SAM WHISLER  
CHASE MARTIN WHYTE  
NATHAN WILLIAMS  
IRFAN WISANGGENI  
DINGRUI WU  
QINGCHENG WU  
YICHAO WU  
CHUNGUANG XIE  
FENG XIONG

FANGSHENG XU  
SHU XU  
ZIQIAO XU  
JIN YAN  
ILAN YANOVSKY  
JINA EMILY YOO  
HAOMIN YU  
DAVID YU  
MICHAEL YUEN  
ANTHONY ANDREW  
ZAMARRIPA  
DIBO ZHANG  
LEI ZHANG  
YOU ZHANG  
BERT ZHAO  
STEVE ZHAO  
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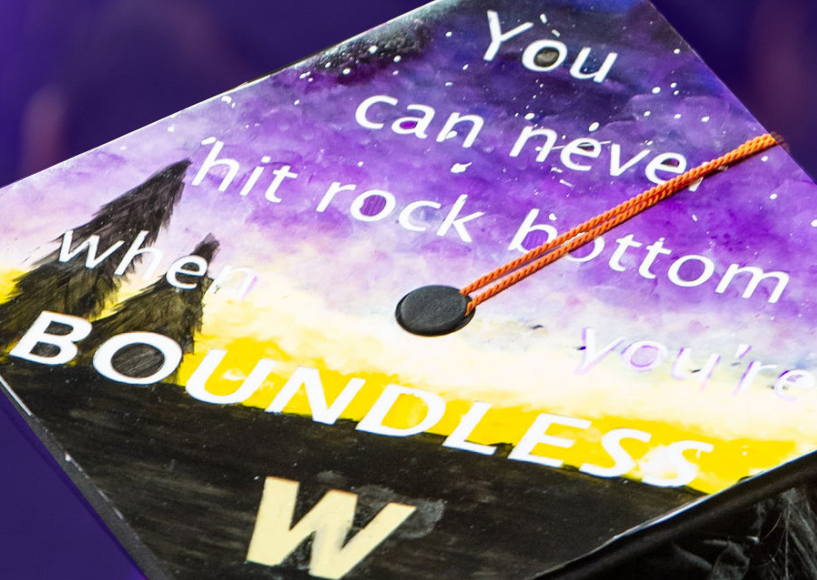
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