

Shruti Misra

Department of Electrical and Computer Engineering
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RESEARCH INTERESTS

Assessing the role university-industry partnerships in building innovation ecosystems, drawing from literature in education, innovation studies and management.

EDUCATION

Ph.D. in Electrical and Computer Engineering (September 2018 - Present)

University of Washington, Seattle, WA, USA

Advisors: Prof. Denise Wilson

Master of Science in Electrical and Computer Engineering (September 2016- June 2018)

University of Washington, Seattle, WA, USA

Bachelor of Science in Electrical and Computer Engineering (September 2012 – June 2016)

University of Washington, Seattle, WA, USA

HONORS AND AWARDS

Student Travel Support for IEEE Control and Decision Conference (2019)

Outstanding Teaching Assistant Award at Department of Electrical and Computer Engineering (2018 - 2019)

Emerging Leaders in Engineering Scholarship by University of Washington College of Engineering (2015-2016)

EXPERIENCE

Graduate Researcher (May 2017 – Present)

University of Washington, Seattle, WA, USA

I apply mixed-methods research to study how engineering design competencies lead to new product innovation. My prior research experience includes machine learning for cybersecurity and hybrid control systems.

Graduate Teaching Assistant (September 2016 – Present)

University of Washington, Seattle, WA, USA

I am a teaching assistant for the Electrical & Computer Engineering Entrepreneurial Capstone program (ENGINE). My responsibilities include assigning students to industry sponsored projects, managing student teams to ensure progress and structuring the program to ensure student success. I have also been a teaching assistant for the following courses:

EE 371: Digital Design, EE 469: Introduction to Embedded Systems

EE 299: Introduction to Microcontrollers, EE 474: Introduction to Embedded Systems, EE 542: Advanced Embedded Systems Design

Innovation Platform Engineer Intern (July 2021 – September 2021)

Moonbeam, Seattle, WA, USA

I designed the IT structure for Moonbeam's Congregate Accelerator program. I also designed the website for the accelerator program and assisted the program manager with planning, press and marketing. I drafted requirements for Moonbeam's Exchange platform to incorporate a startup mentoring application as part of the product roadmap.

PUBLICATIONS

Firmware Engineering Intern (June 2019 – September 2019)

Microsoft, Seattle, WA, USA

I designed and implemented a sparse transformer machine learning model for Microsoft's Project Brainwave Platform.

Firmware Engineering Intern (June 2015 – September 2015)

Athena Energy Corp, Seattle, WA, USA

I developed Internet of Things capabilities for power monitoring in hybrid solar inverters.

Conference Papers: (Peer Reviewed)

[C-6] Maximilian Weininger, Kush Grover, **Shruti Misra** and Jan Kretinsky Guaranteed Trade-Offs in Dynamic Information Flow Tracking Games. In *IEEE Conference on Decision and Control (CDC)*, Austin, Texas, December 2021.

[C-5] Ziyang Bai, Denise Wilson, **Shruti Misra**, Morgan Anderson and Neha Kardam. Differences in Perceptions of Instructional Support between U.S. and International Students Before and During COVID-19. In *ASEE Conference Proceedings*, July 2021

[C-4] Morgan Anderson, Ziyang Bai, **Shruti Misra**, Neha Kardam and Denise Wilson. What Should Teachers Do? Faculty and TA Support during Remote Learning. In *ASEE Conference Proceedings*, July 2021

[C-3] Neha Kardam, **Shruti Misra**, Morgan Anderson, Ziyang Bai and Denise Wilson. What Students Need from Other Students? Peer Support During Remote Learning. In *ASEE Conference Proceedings*, July 2021

[C-2] **Shruti Misra** and Denise Wilson. Industry-University Capstone Design: How did students adapt to the COVID-19 pandemic? In *ASEE Conference Proceedings*, July 2021

[C-1] **Shruti Misra**, Shana Moothedath, Hossein Hosseini, Joey Allen, Linda Bushnell, Wenke Lee, and Radha Poovendran. Learning Equilibria in Stochastic Information Flow Tracking Games with Partial Knowledge. In *IEEE Conference on Decision and Control (CDC)*, Nice, France, December 2019.

Posters

[P-1] **Shruti Misra**, Saralyn Santos, STEM Alternative Spring Break Program. In Poster Session, *Spring Celebration of Service and Leadership*, University of Washington, May 2019

[P-2] **Shruti Misra**, Shana Moothedath, Hossein Hosseini, Joey Allen, Linda Bushnell, Wenke Lee, Radha Poovendran. Learning Equilibria in Stochastic Information Flow Tracking Games with Partial Knowledge. In Poster Session, *ONR-MURI Mid-Review Meeting*, Washington DC, USA, April 2019.

Workshops and Symposiums

[W-2] Denise Wilson, **Shruti Misra**, Ziyang Bai, Neha Kardam, Morgan Anderson. Thinking ahead to the Future of Teaching in Engineering: How has the COVID-19 Pandemic altered Student Expectations? In *ASEE Conference Proceedings*, July 2021

[W-1] **Shruti Misra**, Devon Little. Supporting student-teachers to develop inclusive and culturally aware STEM curriculum. *14th Annual Teaching and Learning Symposium*, University of Washington, April 2018

LICENSES AND
CERTIFICATIONS

Art

[A-2] Misra, Shruti. Looking Glass In *UW Bricolage Literary & Visual Arts Journal*, 34th Issue, April 2016

[A-1] Misra, Shruti. Under the Bridge. In *UW Bricolage Literary & Visual Arts Journal*, 32th Issue, April 2014

Graduate Certificate, Technological Entrepreneurship Certificate (Jan 2021 - Present)
Foster School of Business, University of Washington, Seattle, WA, USA

Graduate Student Representative (September 2021-Present)
Department of Electrical and Computer Science Diversity Equity and Inclusion Committee

Graduate Student Representative (September 2018 – June 2021)
Department of Electrical and Computer Science Curriculum Committee

Volunteer Program Facilitator (May 2016 – April 2020)
STEM Alternative Spring Break Program, Pipeline Project, University of Washington

SERVICE

Student Member and Agua Verde Project Lead (January 2015 – June 2016)
UW Solar

Peer Mentor (September 2014- June 2015)
University of Washington College of Engineering

RCSA Representative (September 2013- June 2014)
Stevens Court

ASUW Representative (September 2013- December 2013)
Indian Students Association, UW

Student Educator (March 2013)
Environmental Alternative Spring Break Program, Pipeline Project, University of Washington

Teacher's Assistant (January 2013-March 2013)
Jane Addams Middle School, Seattle, WA
