

Education

- Sep '18 - **University of Toronto**, *PhD in Computer Science*, 3.8/4.0.
present Advised by Prof. Marzyeh Ghassemi
- Aug '12 - **NIT Rourkela**, *B.Tech M.tech Dual Degree in Electrical and Computer Engineering*, 9.4/10.0.
May '17

Experience

- Jan '20 **University of Toronto**, *Graduate Researcher*, Prof. Marzyeh Ghassemi.
- present Currently working on projects using causal frameworks to de-bias data and pre-trained models for efficient and fair decision making, particularly focusing on healthcare problems.
- Jan '19 **CAMH**, *Student Researcher*, Prof. Ashish Khisti and Dr. Aristotle Voineskos.
- Jan '20 Applied machine learning and graph signal processing techniques to delineate the neural pathophysiology underlying impaired social cognition in people with Schizophrenia Spectrum Disorders(SSD) with the belief that this will inform therapeutic discovery
- Feb '19 **LKS-CHART**, *Research Visitor Student*, Prof. Marzyeh Ghassemi.
- Apr '19 Worked on Early Risk Prediction in the General Internal Medicine (GIM) Ward modelling patient data of the first 24 hours of admission for early assessment of ICU transfer/death or discharge.
- Jul '17 **Indian Institute of Science (IISc)**, *Project Associate*, Prof. Neelesh Mehta.
- Mar '18 Worked in collaboration with Nokia on resource allocation in dynamic TDD networks proposing limited feedback conditioned throughput optimal - discrete rate adaptation policy along with optimal power allocation.
- May '16 **University of Toronto**, *Research Intern*, Prof. Ashish Khisti.
- Jul'16 Worked in collaborating with HP labs on Delay sensitive error correction codes for streaming applications proposing I-frame resetting convolutional codes.
- May '15 **Bremen University of Applied Sciences**, *Research Intern*, Prof. Friedrich Fleischmann.
- Jul '15 Worked in collaborating with e-pholution on progressive addition lenses (PAL), exploring and building moire deflectometer as an efficient technique for lensometry.

Publications

- [7] Pulling Up by the Causal Bootstraps: Can Deep Models Overcome Confounding Bias?
[Sindhu Gowda](#), Shalmali Joshi, Marzyeh Ghassemi
Submitted to AISTATS 2020
- [6] Representation Learning for Social Cognition in SSD
[Sindhu Gowda](#), Navona Calarco, Aristotle Voineskos, Ashish Khisti
Women in Machine learning Workshop at NeurIPS 2019
- [5] Performance Analysis of Bidirectional Multi-User Multi-Relay Transmission Systems with Channel Estimation Error and Hardware Impairments
Anoop Mishra, S. K. Tiwari, [Sindhu Gowda](#) and Poonam Singh
IEEE Transactions on Vehicular Technology, 2019
- [4] OOP Analysis of TWR and OWR Systems with RF Impairments and Channel Estimation Error
Anoop Mishra, [Sindhu Gowda](#) and Poonam Singh
IEEE Vehicular Technology Conference (VTC-Fall), 2018, Chicago, USA
- [3] Impact of Hardware Impairments on Two-Way and One-Way Amplify and Forward Relaying Systems with Imperfect Channel Estimates
Anoop Mishra, [Sindhu Gowda](#) and Poonam Singh
IEEE Wireless Communications and Networking Conference (WCNC), 2017, San Francisco, California, USA

- [2] On the Effect of Hardware Impairments on Two-Way Relay Networks with ICE
Anoop Mishra, Sindhu Gowda and Poonam Singh
IEEE Vehicular Technology Conference (VTC-Fall), 2017, Toronto, Canada
- [1] Outage Performance of Variable-Gain AF Relaying Systems in the Combined Presence of HWI and ICE: Analysis and Comparison
Anoop Mishra, Sindhu Gowda and Poonam Singh
IEEE 86th Vehicular Technology Conference (VTC-Fall), Toronto, Canada, 2017

Teaching Experience

- Sep '20 **Introduction to Machine Learning**, *CSC2515, UofT*, TA.
- Present Preparation and grading of assignments and office hours
- Jan '19 **Introduction to Machine Learning**, *ECE1513, UofT*, TA.
- Dec '19 Preparation and grading of assignments and office hours

Academic Achievements

- Jan '19 **Leader of Tomorrow, Global Biotech Revolution**, *GAP summit 2019, Broad Institute of MIT and Harvard*.
Part of 100 member global cohort of students selected to attend the GAP summit. Focused on the gap area 'Technological Advances to Diagnosis and Management' at the Voices of Tomorrow competition at GapSummit.
- Sep '18 **MITACS Graduate Fellowship**, *MITACS*.
- Nov '16 **MITACS Globalink Scholarship**, *MITACS*.
To pursue undergraduate research at the University of Toronto, Canada.
- Nov '15 **DAAD WISE Scholarship**, *DAAD*.
To pursue undergraduate research at Bremen University of applied sciences, Germany.
- Apr '14,'15 **Academic Excellence Award**, *NIT Rourkela*.
- Aug '08 **National Talent Search Examination**.
Recipients of NTSE - 2008 scholarship, 22nd place in state.

PhD Coursework

- Sep - Dec '18 **Information Theory**, *ECE1502*.
- Sep - Dec '18 **Convex Optimization**, *ECE1505*.
- Sep - Dec '18 **Statistical Learning**, *ECE1504*.
- Jan - May '19 **Probabilistic Learning and Reasoning**, *CSC2506*.
- Jan - May '19 **Machine Learning for Health**, *CSC2541*.
- Jan - May '19 **Ethics in Research**, *JDE1000*.
- Sep - Dec '20 **Causal Inference I**, *CS4775*, (Columbia University (audit)).

Volunteering

- Jan '13 - **AASRA - social service wing of NIT Rourkela**, *General Secretary*.
- Jan '15 Volunteered to teach under-privileged kids of a nearly basthi in the city for 2 evenings a week. Worked on planning and execution of various activities that tried to tap the creative side of the children and provide them opportunities and guidance to explore various career paths along with other responsibilities.