HITARTH CHOUBISA

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EDUCATION

University of Toronto *2018 - 2020*
Master of Applied Science, Electrical & Computer Engineering GPA: 4.0/4.0

Indian Institute of Technology Bombay *2013 - 2017*
Bachelor of Technology with **Honors** in Electrical Engineering Overall GPA: 9.43/10.00
MINOR in Computer Science

WORK EXPERIENCE

Electrical & Computer Engineering, University of Toronto 2018 - Present
Researcher

· Developing machine learning algorithms for solving problems in quantum physics under advisory of Prof Ted Sargent

Sony Energy Devices, Japan (Now part of Murata Mfg. Co. Ltd.) 2017 - 2018
Development Engineer

· Worked on development and deployment of new algorithms for modular communication
· Developed machine learning inspired model for State of Charge Estimation of Li-ion batteries

TECHNICAL STRENGTHS

Computer Languages Python, C++, MATLAB, Verilog, Shell scripting, Prolog, SQL, ROS
Skills & Tools Machine Learning, Signal Processing, Excel, Quartus, GNURadio

RELEVANT COURSES

Field	Description
Machine Learning & Maths	Statistical Learning, Statistical Methods for Machine Learning & Data Mining II, Research Topics in Machine Learning, Linear Algebra, Probability & Random Processes
Others	Advanced Image Processing, Speech Processing, Adaptive Signal Processing, Digital Signal Processing, Design & Analysis of Algorithms, Algorithms & Data Structures

RELEVANT PROJECTS

NLP driven synthesis of new compounds Guide: Prof E Sargent

· Using NLP to learn from existing literature and predicting best suited conditions for previously unknown compounds.

Investigating generalization in Deep Neural Networks Guide: Prof M Erdogdu

· Bayesian Evidence to make the distinction and potentially make predictions about memorization vs learning in NNs

ML driven discovery of defect free materials Guide: Prof E Sargent, Prof I Tamblyn

· Using Graph Convolution Networks, developing methodology to discover defect resistant photovoltaic materials

Video Reconstruction based on Compressive Coded Apertures Guide: Prof. A.Rajwade

· Used Compressed Sensing(CS) for reconstructing slowly changing videos & compared different algorithms for the same.

Natural Language Processing for launching successful campaign Dessa AI Competition

· Using NLP techniques on Kickstarter data to design a successful campaign, **won** the **DESSA AI Consulting competition, 2019**

Genetic Variants Classification Guide: Prof A Khisti

· Exploration of various machine learning strategies to find the best model for predicting how likely a genetic variant will have conflicting clinical classifications.