ANSHUL VERMA

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EDUCATION

University of Toronto (GPA: 4.00/4.00) — Toronto, ON
Master of Engineering in Electrical and Computer Engineering — May, 2020

Graduate Coursework-
Control of Discrete-Event Systems, Game Theory and Evolutionary Games, Control of Stochastic Systems, Information Theory, Introduction to Non-Linear Control System, Digital Image Processing, Machine Learning, Introduction to Cloud Computing*, Introduction to Data Science and Analytics* (*indicates currently pursued)

Indian Institute of Technology Madras (GPA: 8.57/10.00) — Chennai, India
Bachelor of Technology in Engineering Physics — May, 2018

Relevant Undergraduate Coursework-
Instrumentation and Process Control, Modern Control Theory, Applied Time Series Analysis, Image Processing, Analog Circuits, Quantum Mechanics, Statistical Physics, Mathematical Physics, Data Structures and Algorithms

SKILLS

Programming: C/C++, Python, R, Scilab, VHDL (basic proficiency), Verilog (basic proficiency), SQL
Software: MATLAB, MySQL-Workbench, Solidworks, Arduino, AutoCAD, LT-Spice
Languages: English (fluent), Hindi (fluent), Chhattisgarhi (native speaker)

ACADEMIC RESEARCH EXPERIENCE AND PROJECTS

Salary Classification — Jan, 2020 - Mar, 2020
Course Project under Prof. Oleksandr Romanko, U of T — Toronto, Canada
- Performed data cleaning, encoding and exploration on Kaggle dataset of *ML & DS survey challenge* dataset.
- Worked on PCA and feature selection and then built an ordinal logistic regression classifier to classify salary on data-scientists.

Equation's Image to LaTeX markup generation — October, 2019 - December, 2019
Course Project under Prof. K. Plataniotis, U of T — Toronto, Canada
- Performed image segmentation and implemented transfer learning to identify the characters in each segment.
- Trained a CNN to identify different mathematical characters.

Comparison of Iterative Learning Algorithms sFP and FP — October, 2018 - December, 2018
Course Project under Prof. Lacra Pavel, U of T — Toronto, Canada
- Simulated and compared the results of s-FP and FP algorithm on different classes of games.
- Found that sFP algorithm had a trade-off between conversion rate and goodness of the approximate NE solution.

Automated Droplet Manipulation in Microfluidic Networks — May, 2017 - July, 2018
B.Tech Project under Dr.Raghunathan Rengaswamy, CHE Dept. IITM — Chennai, India
- Simulated a microfluidic loop with predictive controller to sort and synchronize drop of different types to obtain a desired pattern.
- Built the whole system and sensor to implement the actuator and used GMM to classify the drops using sensor data.

Artificial Language Model for Hindi — Sep, 2017 - Nov, 2017
Course Project under Dr. S. Umesh, IITM — Chennai, India
- Performed web-crawling using scrapy in python to collect data from web and trained a RNN using tensorflow.

PROFESSIONAL EXPERIENCE

Research Intern — December, 2016 - January, 2017
Quazar Tech. PVt. LTd. under Dr. Deshdeep Sahdev — Delhi, India
- Designed a table top model of a wind tunnel and built an anemometer using Pt-100.
- Calibrated anemometer using a differential pressure sensor and calculated the drag coefficient of different objects using load-cell.

Research Intern — May, 2016 - July, 2016
Quazar Tech. PVt. LTd. under Dr. Deshdeep Sahdev — Delhi, India
- Designed and built an EM-shaker using woofer to find the resonating frequency of the load.
- Used the EM-shaker to find the resonating frequency of cantilevers and springs. Used natural frequency and static loading to verify the resonating frequency obtained.

TEACHING EXPERIENCE

Teaching Assistant
- ECE221 Electromagnetism under Dr. Reza Iravani, U of T, Toronto, Canada — January, 2019 - April, 2019
- ECE221 Electromagnetism under Dr. Reza Iravani, U of T, Toronto, Canada — January, 2020 - April, 2020