Yuxuan Yao

SOFTWARE ENGINEERING · DEEP LEARNING RESEARCH

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Education

University of Toronto, St.George — *Toronto, ON, Canada*
B.S. IN COMPUTER ENGINEERING — *Sep. 2017 - Exp. May. 2021*
- CGPA: 3.52 / 4.0
- Awards: B.C. Achievement Scholarship, National AP Scholar (Canada)
- Dean's List Honour: Fall '17, Winter '18, Fall '18

Work Experience

Microsoft — *Redmond, WA, USA*
SOFTWARE ENGINEERING INTERN — *May. 2020 - Aug. 2020*
- Incoming Software Engineering Intern on the Azure Core Operating Systems (COSINE) Data Intelligence Group

Google — *Waterloo, ON, Canada*
SOFTWARE ENGINEERING INTERN — *Jan. 2020 - May. 2020*
- Incoming Software Engineering Intern on the Google Kubernetes Engine (GKE) team

Huawei Canada R&D — *Kanata, ON, Canada*
DEEP LEARNING RESEARCH INTERN (SUPPORT ENGINEER) — *May. 2019 - Aug. 2019*
- Architected TensorFlow-based deep generative models as prototypes to potentially gain a budget of $2M for the research project.
- Developed Normalizing Flows and Wavenet models to verify that AI-based methods can optimize wireless communication procedures.
- Implemented a dynamic programming algorithm utilizing Variational Autoencoder outputs to improve signal noise-tolerance by over 10x.
- Visualized research and experimental results to be used on 5G/pre-6G Technologies using matplotlib, Numpy, and IPython.

Projects and Competitions

GIS Mapping/Routing Application — *University of Toronto, Ontario*
FASTMAP — *Jan. 2019 - Apr. 2019*
- Developed in C++, a mapping/path-finding application that enhances courier deliveries with the use of STL, Boost, EZGL, and OSM database.
- Implemented graph algorithms including BFS, Dijkstra's and A* algorithms to find paths for navigation and optimized for a 5x runtime speed-up.
- Optimized with multi-threading and iterative algorithms (k-Opts) to be ranked 11/110 teams in the faculty for the quality of our Courier Algorithm.

TreeHacks — *Stanford University, California*
TURNDOWNFORWHAT — *Feb. 2019*
- Architected a Node.js server to convert FormData voice input into streams for integrating the voice assistant with the mobile interface.
- Detected movement using the smartphone accelerometer to lower music volume when falling asleep with React-Native.

UofTHacks — *University of Toronto, Ontario*
ETHERRIDE — *Jan. 2019*
- Received the Best Aragon App by ChainSafe award out of 102 team submissions.
- Developed client and server applications to monitor Ethers.js Smart Contracts and interface with APIs through HTTP to unlock a Tesla.

Extracurricular Leadership

UTRA (University of Toronto Robotics Association) — *Toronto, ON, Canada*
SPONSORSHIPS DIRECTOR IN 2018 & WEBMASTER AND HACKATHON LEAD IN 2019 — *Sep. 2017 - Current*
- Recruited and managed a team of eight to plan and organize UtraHacks as the Executive Team Lead to gather over 200 attendees.
- Acquired sponsorship from Solidworks, Particle, Leapmotion, Nvidia and more, totaling over $5000 in value.

Technical Skills

Programming Languages	Python · C/C++ · Javascript · HTML · CSS · MATLAB
Web Development	Node.js · React.js · Django · Flask · MongoDB
Machine Learning	TensorFlow · Keras · Scikit-learn · MatPlotLib · Numpy
Others Technologies	Git · Linux · Verilog HDL · ARM Assembly · Solidity · MS Office · Arduino