Guanghan Wang

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EDUCATION

University of Toronto — Toronto, ON

Bachelor of Applied Science in Engineering Science, Machine Intelligence option — *September 2019 – June 2024*

- Current Year: 3 Expected Graduation Year: 2024 Cumulative Average: 3.92/4.0

ECE421H1	INTRODUCTION TO MACHINE LEARNING	99
ECE358H1	FOUNDATIONS OF COMPUTING	100
ECE352H1	COMPUTER ORGANIZATION	95
ECE361H1	COMPUTER NETWORKS I	95
CSC343H1	INTRODUCTION TO DATABASES	94
ROB311H1	ARTIFICIAL INTELLIGENCE	In Progress
ECE324H1	MACHINE INTELLIGENCE, SOFTWARE & NEURAL NETWORK	In Progress
ECE353H1	SYSTEMS SOFTWARE	In Progress
ECE368H1	PROBABILISTIC REASONING	In Progress

Coursera

DeepLearning.AI	Deep Learning Specialization by Andrew Ng (certificate)	Summer 2021

TECHNICAL SKILLS & INTERESTS

Languages: Python, C, Dart(Flutter), ARM, NIOS II, Verilog, MATLAB, HTML/CSS/JavaScript, SQL, Java
Tools: Git/GitHub, Wireshark, Bash, LATEX, Intel Quartus Prime, ModelSim, LTspice
Frameworks & Libraries: TensorFlow, NumPy, Matplotlib, React Native, pandas, scikit-learn
Interests: passionate about online education; Japanese anime and Chinese classic literature; course overloading

EXPERIENCE & PROJECTS

Teaching Assistantship — Fall 2021 – Winter 2022
University of Toronto — *Toronto, ON*

- ESC180: INTRODUCTION TO COMPUTER PROGRAMMING (Fall 2021)
- ESC190: COMPUTER ALGORITHMS & DATA STRUCTURES (Winter 2022)

Summer Research on Deep Learning | *Python, TensorFlow* — Summer 2021 – Present
Toronto Systems Security Lab (UofT); Summer Research Assistant *under Prof. David Lie* — *Toronto, ON*

- Collected logs and code coverage using a fuzzer based on AFL
- Trained a LSTM neural network to predict code region coverage based on logs
- Achieved an accuracy of 90.59% on openssh/wolfssh pair

Summer Research on Audio Adversarial Machine Learning | *Python, TensorFlow* — Summer 2020
CleverHans Lab (UofT and Vector Institute); Summer Research Assistant *under Prof. Nicolas Papernot* — *Toronto, ON*

- Devised a genetic algorithm to tackle audio adversarial ML of speaker verification under a black box setting
- Self-learned NumPy and TensorFlow from scratch in the process
- Achieved the goal of lowering the model accuracy below 1%

Goal? Go! (link) | *React Native* — February 2021
Hackathon, Team Leader — *Toronto, ON*

- Developed a mobile application to help users keep track of their goals and share them with friends or the public
- Aimed to strengthen the connections among people and promote a more active lifestyle during pandemic
- Implemented in React Native and open-sourced the project on GitHub

Student Organizations — September 2020 – August 2021
Student Clubs, Executive Member — *Toronto, ON*

- University of Toronto Application Development Association, Technology Department
- Associated of Chinese Engineers, Marketing Department, Web Master

HONOR & AWARDS

2020	The John M. Empey Scholarships (achieving the highest average percentage of marks in the year)
2019	University of Toronto Scholar
2018	Intensive Study on Computer Science, Stanford University
2018	AP Scholar with Distinction Award
2018	Physics Bowl Contest Regional Top 10 & Global Top 100