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

ECE361H1	COMPUTER NETWORKS I	A+
CSC343H1	INTRODUCTION TO DATABASES	A+
ECE253H1	DIGITAL AND COMPUTER SYSTEM	A+
ESC190H1	COMPUTER ALGORITHMS & DATA STRUCTURES	A+

Stanford University — Stanford, CA

Undergrad HS Summer Visitor, Intensive Study on Computer Science — *June 2018 – August 2018*

- Cumulative Average: 4.187/4.3

CS 106B	PROGRAMMING ABSTRACTIONS	A+
CS 193C	CLIENT-SIDE INTERNET TECHNOLOGIES	A

Coursera

DeepLearning.AI	Deep Learning Specialization by Andrew Ng (certificate)	Summer 2021
Stanford University	Machine Learning by Andrew Ng	Summer 2020

Technical Skills & Interests

Languages: Python, C, Dart(Flutter), ARM, 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

Summer Research on Deep Learning | *Python, TensorFlow* — Summer 2021

Toronto Systems Security Lab (University of Toronto); 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

Learning Scheduler (link) | *Python* — November 2020

Hackathon, Team Leader — *Toronto, ON*

- Developed an application generating schedules automatically to improve digital learning experience
- Designed a graphic user interface in PyQt5 and open-sourced the project on GitHub

Personal Website (Portfolio) (link) | *HTML/CSS/JavaScript* — September 2019 – Present

Student Organizations — September 2020 – Present

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	AP Scholar with Distinction Award
2018	Chinese Informatics Olympiad Provincial (NOIP) Third Price
2018	Physics Bowl Contest Regional Top 10 & Global Top 100