WAN SONG LEE

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EXPERIENCE

Teaching Assistant
September 2019 – April 2020

University of Toronto

- Teaching assistant for **Principles of Programming Languages** and **Neural Networks and Machine Learning**
- Ran 3 weekly tutorials for 120 students, helping students review key concepts
- Conducted practicals for students, guiding students through sets of instructions and supervising them as they worked on the lab

Research Assistant
January 2020 - April 2020

University of Toronto

- Used **PyTorch** to train a self-driving car that navigates using visual input and imitation learning from an expert human driver
- Performed literature survey to look into the possibility of attacking self-driving cars by adding malicious noise on billboards/traffic signs

PROJECTS

Course Crunch
January 2020 – April 2020

Web Application

- Developed a **React** web application that gives course recommendation for students and various other services
- Designed **REST**ful backend **microservices** enabling user's schedule to be stored persistently in an online database
- Worked in a group of 7, following the **scrum** and **agile** development processes to develop efficiently
- Named best project by students and course instructor among 20 groups
- Tech stack: **MongoDB**, **Express**, **React**, **Node.js**, **PostgreSQL**, **Neo4j**

Exam Scanner
Februrary 2019

Python Script

- Used **NumPy**, **OpenCV** and **scikit-learn** to read student information from exam covers, then upload each students' test to their own repository on MarkUs.
- Reduced the amount of time for professors and teaching assistants to input grades from 2 hours to 2 minutes.
- Currently used by the Mathematical and Computational Science department to scan term tests and exams.

Plastic Language
September 2019

Programming Language & Interpreter

- Built a small programming language in **Racket**
- Implemented variable declaration, data types, paterrn-matching, functions, higher order functions, recursion, lexical scoping, etc

PaperAccess
October 2016

Android App

- Used **Java** to build an Android app that helps students prepare for O-level exams by helping students download past exams and marking schemes easily
- Wrote a webscraper that searches for all available exams from an external website, then saves the results into a local **SQLite** database for caching to improve search time by over 20x

EDUCATION

H.B.Sc. in Computer Science

University of Toronto

Sept 2016 – April 2020

Cumulative GPA: 3.58
Major GPA: 3.75
Final Year GPA: 4.00

Graduated with High Distinction
Departmental Honors Roll 2019 - 2020
Dean's list 2019-2020

- Relevant Coursework

Software Engineering | Databases | Data Structures and Analysis | Algorithm Design and Analysis | Operating Systems | Web Development | Systems Programming | Parallel Programming | Computer Networking

TECHNICAL SKILLS

- Languages

Java | C | Python | Bash | SQL | HTML | CSS | JavaScript | PHP | Racket | Haskell | Lua | Visual Basic | Assembly | Verilog

- Library & Frameworks

MongoDB | Express | React | Node.js | PostgreSQL | Neo4j | JQuery | pandas | NumPy | PyTorch | Spark | scikit-learn | OpenCV | CUDA | ROS

- Other skills

Git | Linux | Scrum | Agile | Latex | CI/CD | AWS | GCP

CERTIFICATION