Jaden Wang

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EDUCATION

University of Toronto Scarborough - *Honours Bachelor of Science*
(Computer Science Specialist - Software Engineering & Statistics Major)

cGPA: 3.5/4.0 | Dean's List | September 2017 - December 2020

Relevant Coursework: Software Engineering, Operating Systems, Design and Analysis of Data Structures
Principles of Programming Languages, Databases, Web Programming, Computability and Computational Complexity

EXPERIENCE

University of Toronto Scarborough - *Undergraduate Teaching Assistant*

September 2018 - April 2019

- Led labs that taught computer science fundamentals and Python to over 700 students (Introduction to Computer Science I). Topics that were covered include sorting, file I/O, and Python internals.
- Taught the essentials of data structures and algorithms using C (Introduction to Computer Science II). Topics that were covered include complexity analysis, graph theory, and memory management.

Codefusion Communications Inc - *Computer Analyst Intern*

March 2016 - June 2016

- Implemented and optimized automated solutions to repetitive tasks, including internal server and workstation management, utilizing PowerShell and Bash scripting, saving 2+ hours per day.
- Provided technical consulting services to company clients, resolving problems involving servers and workstations, by performing remote and on-site system diagnostics and troubleshooting.

PROJECTS

Carnet2 - *github.com/jadenyjw/carnet2-arduino* | **Demo:** *https://bit.ly/2IgObn0*

- Engineered a self-driving car with a trainable neural network that can maneuver through arbitrary paths.
- Designed and trained a convolutional neural network with 70% accuracy on self-collected data.
- **Technologies Used:** *Software:* Python, Keras, OpenCV | *Hardware:* Arduino, ESP8266

Tanks - *github.com/jadenyjw/tanks-backend* | **Demo:** *https://tanks.ml*

- Implemented a real-time multi-client server for a game, utilizing websockets for peer communication.
- **Technologies Used:** *Backend:* Node.js | *Frontend:* React.js, Pixi.js | *Systems:* NGINX, Google Cloud

DrawPVP - *github.com/jadenyjw/drawpvp*

- Created a multiplayer game where players doodle against each other to have their drawings judged by a neural network with 85% test data accuracy.
- Implemented local area network transmission between multiple clients and a server.
- **Technologies Used:** JavaFX, DeepLearning4J, Kryonet

Waveform Visualizer - *github.com/jadenyjw/waveform-visualizer*

- Designed a hardware waveform visualizer that displays various audio transformations received through a microphone input and plays it back in real-time with transformations applied.
- **Technologies Used:** Verilog, FPGA

LANGUAGES & TECHNOLOGIES

Java | Python | C | Haskell | Linux | Git | SVN | JavaScript | HTML | CSS | SQL