Daniel Xie

(519) 300-2863 • danxie2001@gmail.com • 2290 Suzanne St., Lasalle, ON

Education

University of Western Ontario, London, ON **(2019-present)**
Bachelor of Engineering Science, Computer Engineering in Electronic Devices for Ubiquitous Computing.

Extracurricular Activities

Western Formula Racing Team Member **(2019-present)**

- Was a team recruit involved in manufacturing an electric formula car in the 2019-2020 season and a member Electrical Traction/GLV (Grounded Low Voltage) team in the 2020-2021 season.
- Gained knowledge and hands-on experience in wiring the Accumulator system, designing PCBs (Printed Circuit Boards) and using CAD tools such as SolidWorks and Eagle Autodesk.
- Successfully collaborated with a teammate to design a DC-DC converter PCB to convert ~500V to 12V for the GLV system and met Formula SAE safety guidelines.
- Updated the Power Distribution Module PCB design with an improved undervoltage protection circuit to prevent the over-discharging of the car battery cells.

Western AI member **(2019-present)**

- Was a member of the business applications team that helped create a Long Short-Term Memory neural network model in Python to predict stock prices. During the summer of 2020, was a member of a medical-imaging team that created a VGG16 model for diagnosing different stages of Alzheimer's disease based on an MRI image. Currently a member of another medical imaging team currently exploring an X-ray scan dataset of 14 different diseases.
- Helped solve a variety of debugging issues and gained hands-on experience and knowledge developing linear regression models and neural networks.
- Was able to refine skills to find an optimized set of weights and preprocessing to consistently achieve greater than 95% accuracy with the VGG16 model.

Participant in Hackathon and Programming Competitions **(2018-2020)**

- At the University of Windsor 15th Regional Secondary School Programming Competition, I leveraged my problem-solving skills to come up with ideas for solutions that helped us win the competition. Our solutions were done in Java.
- At Massey Hacks V, after my team's initial plan turned out to be unviable due to unforeseen circumstances, I came up with new project ideas to implement within a limited remaining time. We successfully implemented our solution in C++ and placed in the top five overall.

Skill Set

CAD/ECAD Tools	Onshape, SolidWorks, Eagle Autodesk
Programming languages	Python, Java, MATLAB, C, C++, Rust
Development Environments/Tools	IntelliJ, Microsoft Visual Studio Code, Microsoft Visual Studio, Pycharm, Google Colaboratory, Jupyter Notebook, Android Studio, MATLAB, Arduino IDE, Github.

Interests

Wireless Microcontrollers, Video Games, Cooking, Basketball