

# Daniel Xie

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## Summary of Qualification

- Experienced in using CAD and E-CAD tools.
- Experienced in object-oriented programming and software development.
- Experienced in machine learning development.
- Proficient user in Microsoft Office Suite and a variety of development environments.
- Fast-learner, self-motivated, analytical, great verbal and written communication skills, process and results oriented, flexible team player, and creative problem-solver.

## Education

**University of Western Ontario, London, ON** (2019-present)

- Currently pursuing a B. Eng. in ECE.

**Assumption College Catholic High School, Windsor, ON** (2015-2019)

- Graduated with the International Baccalaureate Diploma (IBDP) in addition to the OSSD diploma.

## Honours and Achievements

- Graduated from the IBDP.
- Graduated from high school with Honour Roll with Distinction.
- Recipient of the Western Scholarship of Excellence, University of Windsor Dean's Level of Support Scholarship, and University of Windsor Computer Science Entrance Scholarship.
- First place at the University of Windsor 15th Regional Secondary School Programming Competition.
- Placed top five at Massey Hacks V.

## Skill Set

### **CAD/ECAD Tools**

Onshape, SolidWorks, Eagle

### **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

## **Experiences**

### **Western Formula Racing Team Member**

**(2019-present)**

- Was a team recruit involved in building an electric racing car and a member electrical traction team.
- 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 designed a DC-DC converter PCB to convert ~500V to 12V for GLV system.

### **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.
- Experienced gained working with VGG16 and RESNET neural network models.
- 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)**

- A team member in two hackathons and one programming competition.
- 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.
- At Starter Hacks, I collaborated with my teammates to plan and develop a geolocation interactive app implemented in Java. Although we did not place, we received positive feedback from our judges for our design.