

WALEED AHMED

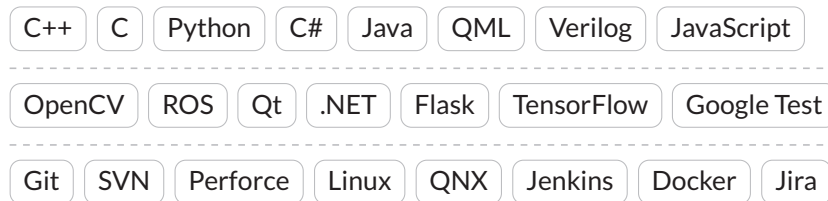
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🔗 github.com/w29ahmed

SKILLS



EXPERIENCE

Autonomous Vehicles Software Engineering Intern

Huawei

📅 Sep 2020 – Present

📍 Toronto, ON



- Path planning research and development for a level 4+ system

Automotive ADAS Software Engineering Intern

Qualcomm

📅 Jan 2020 – Apr 2020

📍 Toronto, ON



- Developed system and application software for an ADAS & autonomous driving platform in **C/C++**
- Accelerated performance of a **computer vision SDK** by an average of **20x** by leveraging available hardware and software architecture in automotive focused Snapdragon SoCs

Software Engineering Intern

Christie Digital

📅 May 2019 – Aug 2019

📍 Kitchener, ON



- Worked closely with QA and UI/UX designers for user interface development and maintenance to meet release deadlines across a wide variety of platforms using the **Qt** framework in **C++** and **QML**
- Significantly reduced the effort needed to maintain code health through software architecture redesign and setup of a continuous integration pipeline on a **Jenkins** build server that included unit tests with **90%** code coverage using **Google Test**

Video Software Engineering Intern

Synaptive Medical

📅 Sep 2018 – Dec 2018

📍 Toronto, ON



- Improved visibility of biological tissue during surgical procedures through colour manipulation using **C++ (OpenCV)** and **C#**
- Post-processed image data in **Python** using **Pandas**, **Numpy**, and **Matplotlib** to analyze colour manipulation

Industrial Imaging Software Engineering Intern

P&P Optica

📅 Jan 2018 – Apr 2018

📍 Waterloo, ON



- Developed a robust image acquisition framework for rapid line scan imaging of an industrial conveyor belt in the food industry
- Implemented image correction algorithms and post-processing for industrial cameras in **Python** using **Numpy**, **OpenCV**, and **Matplotlib**

DESIGN TEAMS

Path Planning Core Member

WATonomous



📅 Sep 2019 – Dec 2019

- Simulation software development for a level 4 autonomous vehicle competing in the **SAE AutoDrive Challenge**

Software Team Lead

UW Robotics



📅 Apr 2018 – Aug 2019

🔗 github.com/uwrobotics/RR2019

- Managed development for a robot that competed in the **International Autonomous Robot Racing Competition**
- Developed software architecture in **ROS** and **C++** for **perception**, **mapping**, and **path planning** using a stereo camera, IMU, and LiDAR sensor

PROJECTS

Synviz

UofTHacks VII (3rd place)



📅 Jan 2020

🔗 github.com/w29ahmed/Synviz

- Built an IoT device that could decode spoken text from facial input
- Developed a backend web server in Python using **Flask**, **Google Cloud Storage**, **OpenCV**, and **TensorFlow**

Agilite

DeltaHacks V



📅 Jan 2019

🔗 github.com/w29ahmed/Agilite

- Built a **Python** backend using **OpenCV** and **TensorFlow** capable of recognizing handwritten text from an agile board

EDUCATION

B.ASc Computer Engineering,
Artificial Intelligence Option



University of Waterloo

📅 Sep 2017 - Apr 2022

- Coursera: Self-Driving Cars Specialization
- Coursera: Machine Learning (Andrew Ng)
- Udemy: Computer Vision