

TECHNICAL QUALIFICATIONS

Languages – Java, Python, C, C++, MATLAB, HTML5, CSS3

Technologies – OpenCV, Android, AWS, Git, SVN, Linux, macOS, Windows

Miscellaneous – Agile, Android Studio, Visual Studio, XCode, Photoshop

WORK EXPERIENCE

Software Developer

Jan 2017 – Apr 2017

Videri Inc

Montreal, QB

- Developed a system to detect salient regions of an image on ingestion (**OpenCV, Python**)
- Improved image thumbnailing and placement by centering around detected regions of interest
- Redesigned object detection algorithm to tolerate higher variations in angle, rotation and lighting (over **95% detection rate** up from 60% with no increase in detection time)
- Implemented Java backend logic to allow users to manually place an image across multiple displays
- Trained neural network models for use in transferring artistic styles onto images (**AWS, Torch**)

Application Developer

May 2016 – Aug 2016

Aeryon Labs

Waterloo, ON

- Developed features to control and monitor Aeryon's flying robot (sUAS) in real-time (**Java**)
- Improved user experience by reworking the main navigation UI
- Created a tool to detect and erase sensitive information from flight logs

Asset Management Intern

Sep 2015 – Dec 2015

Hydro One

Brampton, ON

- Developed a script that traces the city grid and generates information for any queried path
- Automated detection of errors within the company's GIS database

Hardware Test Automation Intern

Jan 2015 – Apr 2015

SkyWave

Ottawa, ON

- Designed and built an application to automate power consumption tests
- Developed a **Python** framework used to quickly automate hardware testing

Hardware Design Validation Intern

May 2014 – Aug 2014

General Electric

Markham, ON

- Tested potential replacement components for suitability in GE's substation controller boards

PROJECTS

Countdown Buddy

Android

- Published an **Android** app that solves the Numbers game from the game show *Countdown*
- www.tonyhuiwu.com/CountdownBuddy/

Chiptune Music Player

Arduino

- Built a circuit that plays music through a piezoelectric speaker and lights up LEDs based on frequency

EDUCATION

University of Waterloo

Sep 2013 – Apr 2018 (Expected)

BASc in Electrical Engineering, Honours (Co-op)

Waterloo, ON