

Alvin Marquez - Electrical Engineering (M.A.Sc.)

SKILLS

- Excellent communication skills achieved through collaboration in cross functional teams
- Critical thinking skills developed from solving problems in work & personal projects

Programming Skills: Python, C++, Bash, Java, Time/Space complexity analysis

Tools: VS Code, Git, JIRA, Docker, Jenkins, Windows Subsystem Linux, MATLAB

Operating Systems: Linux for Desktop & Embedded Systems, Windows 7/10

Others: Robot Operating System (ROS), Kalman Filter, Sensor fusion, Object Oriented Programming, CAN protocol, Ultra-wideband (UWB), Positioning Systems

EXPERIENCE

Danlaw — *Software Engineer - Validation for OBD-II DataLogger*

February 2019 - Present

- Developed scalable test cases using Python pandas & pytest for test automation and entrypoints for a CLI
- Developed following Python PEP-8 best practices and agile principles
- Maintained Python package using pip, git, & Docker for distribution

Massive Open Online Courses

- Udemy - Mastering Data Structures & Algorithms using C/C++
- Udemy - Jenkins, From Zero to Hero: Become a DevOps Jenkins Master
- Udacity - Android Basics Nanodegree by Google
(<https://github.com/ehmarquez/GuardianNews>)

Avidbots Corp — *Applications Engineer for Autonomous Robots*

November 2017 - December 2018

- Managed operation of 100+ autonomous floor scrubbers by using Linux, ROS Python/C++ & bash
- Debug issues and discuss solutions with product owners and software team leads
- Experience working in a fast paced tech startup

University of Windsor, Ontario — *Master of Applied Science (M.A.Sc.) with Thesis*
Autonomous Ground Vehicle Project

- Created an indoor positioning system using an IMU, Beaglebone and UWB transceivers.
- Fused sensor data using a Kalman filter implemented in ROS Python/C++.