Mobile: (519) 996-1772
Email: alvinmarquez7@gmail.com
Github: https://github.com/ehmarquez
LinkedIn: https://www.linkedin.com/in/alvinmarquez

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

SKILLS AND PROJECTS

Programming Skills: Python, C++, Bash, Java
Professional Tools: VS Code, Git, JIRA, MATLAB, Android Studio
Operating Systems: Linux (Ubuntu & Debian), Windows 7/10
Others: Robot Operating System (ROS), Kalman Filter, Sensor communication and fusion, Ultra-wideband, Workflow automation, Microcontrollers, Embedded Systems, Router networking configuration

Autonomous Ground Vehicles - Conducted thesis on the design and implementation of an autonomous ground vehicle for continued indoor positioning research at the Wireless Communication and Information Processing research lab. Utilized a low cost IMU and ultra-wideband for an indoor positioning system. Used Robot Operating System (ROS) to handle sensor communication with a Beaglebone microcontroller, and used Extended Kalman Filter for sensor fusion. Produced analytical comparisons and conclusions using MATLAB.

EXPERIENCE

Danlaw — *Software Validation Engineer*

Feb 2019 - Current

- Provided high quality assurance by creating detailed and specific test cases based on requirements
- Decreased manual testing time and improved future maintainability of test cases by using python pandas and pytest frameworks for test automation

Avidbots Corp — *Applications Engineer*

November 2017 - December 2018

- Utilized Linux, ROS, and scripting on a daily basis to manage operation of 100+ robots
- Saved +50% of developer debug time by performing detailed root cause analysis using collected diagnostic log files
- Used JIRA with JQL to effectively identify, report, and track bugs
- Improved robot functionality and software development lifecycle by proposing solutions to field issues to the Product/Software Teams

EDUCATION

University of Windsor, Ontario — *Master of Applied Science (M.A.Sc.) with Thesis - Electrical Engineering*

Graduating Class of 2017 with a GPA of 85.75 out of 100

Udacity — *Android Basics Nanodegree by Google*

Designed and created a News Feed app that gathers and displays articles in the ‘Game’ category using the Guardian News API. (https://github.com/ehmarquez/GuardianNews)