Kieran Broekhoven

4A Mechatronics Engineering
University of Waterloo

kieran.broekhoven@gmail.com
519-572-1785
www.kieranbroekhoven.com

Technical Skills

Languages: C, C++, Python, HTML/CSS, Bash, Batch, MatLab, C#

OS: Windows, Ubuntu, OS X

Frameworks/Libraries: ROS, Django, Bootstrap, OpenGL

Design software: AutoCAD, SolidWorks, MIMICS, 3-Matic

Other: Git, SVN, REST API, Sentry, JSON, Visual Studio, Arduino

Activities and Interests

Theatre: Director, performer, choreographer

Music: guitar, piano, drums, bass

Recreation: volleyball, snowboarding, rock climbing

Student life: student politician, dance teacher, orientation leader, Graduation Committee Co-Chair

Martial Arts: Karate, Kung Fu, Kobudo

Work Experience

Test Automation Developer - Apple Inc. Special Projects
May - August 2017, Ottawa, ON
- Working on a test automation framework for a real-time embedded system, creating new features and debugging failures
- Independently designing and implementing a failure diagnostics library in Python for a hardware communication system
- Automating various test processes with Bash and Python scripts

Software Developer - IGNIS Innovation
September – December 2016, Waterloo, ON
- Developing OpenGL (C++) and .NET (C#) software for an application interfacing with organic LED screens
- Debugging issues in OpenGL and .NET
- Refactoring code and restructuring architecture to create a more readable and efficient code base
- Organizing the company foosball tournament

Test Engineering Analyst (Software) – Clearpath
January – April 2016, Kitchener, ON
- Creating a Django application to monitor a set of servers that each control a fleet of robots.
- Writing Python extensions to Sentry, a crash reporting software, to automate company processes.
- Replacing manual tasks with Bash and Python scripts.

Build Master Intern – Radialpoint, Inc.
May – August 2015, Montreal, QC
- Designing and implementing a system using Python that automates the process of setting up virtual machines on several physical build machines.
- Creating a web service that allowed employees to utilize the system with an intuitive interface.
- Assisting developers with problems they encountered in the company's build system.

Previous Employment
- Biomechanical Design, Soochow University
- Research Assistant, UWaterloo Neurorobotics Lab
- Karate Instructor, 6-12 year olds