Taylor von Hausen

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Skills

Languages: Python, C, Java, HTML/CSS, JavaScript, Verilog

Software: Git, Bash, PowerShell, MATLAB, MongoDB

Education

Bachelor of Engineering, *University of Guelph* Engineering Systems and Computing (Co-op)

Graduated April 2021

Experience

Software Developer (Co-op), Cognitive Systems Corp

January 2019 - December 2019

- Developed a Python program to simulate a "motion walkthrough test" under different device sensitivity conditions using Pandas data frame and Matplotlib
- Implemented an authentication layer for an internal JavaScript web application and improved the UI/UX of the application, added continuously updated bar graph to display motion detected
- Created a suite of 100 tests for an iOS and Android application that reduced QA work needed for the apps
- Developed a Continuous Integration system that ran the test suite developed daily and every time a change was made to the applications

Quality Assurance Engineer (Co-op), SOTI Incorporated

May 2020 - December 2020

- Developed and ran smoke test on a WebRTC application
- Performed and directed extensive QA on the WebRTC application
- Developed an automated test suite for the CLI of the WebRTC application using PowerShell scripting
- Aided in the development of the architecture of an additional automated test suite for WebRTC app

Software Developer (Co-op), MEDA

May 2018 - September 2018

- Designed and developed a Python-Flask application to distribute voucher codes via SMS to recognized clients, with an SMS interface as well as a web interface
- Created and integrated a MongoDB with the Python-Flask application to store information on clients, vouchers, and system logs

Projects

Hardware AES Implementation, University of Guelph

January 2021 - April 2021

- Implemented an AES algorithm using Verilog HDL and C on a DE1-System on Chip development board with a team of four
- Designed AES encryption/decryption modules, a finite-state machine to act as a hardware interface and a software driver

Crisis Communicator, University of Guelph

September 2020 - December 2020

- Developed a device when switched on sends vitals information of wearer to an end device and communicates an emergency signal via SMS
- Coordinator radio device connected to a Raspberry Pi that used a multi-thread Python program to process vitals data and send emergency alerts via SMS