Taylor von Hausen

tvonhausen@gmail.com • 519-277-4981 • tvonhaus.github.io

Education

Bachelor of Engineering, *University of Guelph* *Graduated April 2021*
Honours Engineering Systems and Computing (Co-op)

Experience

Software Developer (Intern), *SOTI Incorporated* *May 2020 - Dec 2020*

- Directed the QA efforts for cutting-edge real-time communications web application
- Developed a smoke testing framework that directly prevented bugs from reaching production
- Improved reliability for the CLI of the WebRTC application by building a test suite using PowerShell scripting
- Aided in the development of the architecture for an additional automated test suite testing the UI of WebRTC app

Software Developer (Intern), *Cognitive Systems Corp* *Jan 2019 - Dec 2019*

- Led developer operations efforts for Wi-Fi motion sensing team
- Developed a motion walkthrough simulator to benchmark Wi-Fi sensor performance under differing sensitivities using Python, Matplotlib and Pandas data frame
- Increased internal web app usage by streamlining the UI and adding motion detection visualizations in JavaScript
- Improved web app security by implementing an authentication layer to verify user's email and password
- Led the development of a robust continuous integration system that saved hours of QA time by catching automatically detected regressions
- Integrated CI system with hundreds of iOS and Android unit tests to maximize developer efficiency and ensure bugs didn't reach production

Software Developer (Intern), *MEDA* *May 2018 - Sep 2018*

- Acted as sole software developer and project manager for electronic voucher project
- Architected a Python-Flask backend to drive customer engagement by distributing voucher codes via SMS
- Managed thousands of requests to multiple instances of application by integrating with a MongoDB to efficiently store and query customer data and system logs

Projects

Hardware AES Implementation, *University of Guelph* *Jan 2021 – Apr 2021*

- Implemented an AES-128 algorithm using Verilog HDL and C on a DE1-System on Chip development board
- Designed AES-128 encryption/decryption modules, a finite-state machine to act as a hardware interface and a software driver
- Created a set of C functions that would be used by the DE1-SoC board to perform the AES-128 encryption and decryption operations

Crisis Communicator, *University of Guelph* *Sep 2020 – Dec 2020*

- Designed and built a device that 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

Skills

Python, C, Java, HTML/CSS, JavaScript, Verilog**,** Git, Bash, PowerShell, MATLAB, MongoDB