Zachary Hart

Contact Information

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Objective

Seeking a co-op in software engineering for the Spring/Summer of 2018.

Education

Rochester Institute of Technology - Rochester, NY — August 2015 - Present

- Major: B.S. Computer Science
- Expected graduation: June 2020
- Relevant Coursework: Data Structures & Algorithms, Mechanics of Programming, Intro to Software Engineering, Concepts of Computer Systems, Concepts of Parallel and Distributed Systems

Technical Skills

Languages Python, C, Java, MIPS Assembly
Frameworks & Libraries Flask, Django, Requests
Operating Systems Linux, Windows, macOS Sierra
Technical Skills 6502 Assembly, General Digital Electronics, Hardware Prototyping, Home Automation

Work Experience

Syncurity — https://syncurity.net
Integrations Engineer — July 2017 - Present

Collaborated with a remote team in a small and fast-paced startup environment to integrate third party APIs and services into our product using **python**. Gained experience in working with a team of engineers and security analysts both within the company and as clients, remote and on-site, to understand the needs of our users. Worked directly under the CSO and former CEO.

Projects

CSH Lounge Automation — https://github.com/zthart/csh-automation
Aggregates control of consumer devices such as A/V receivers, projectors, and lighting control and implements **X10 Automation**, **HDMI-CEC**, and serial communications to interface with the devices. The devices are exposed to web requests via **Python**/**Flask** application in order to allow control from any internet enabled device.

Drink — https://github.com/zthart/drinkpi
A collection of web-connected vending machines that allow users to vend items from any device connected to the internet. Worked on a diverse team to maintain, update, and discover new approaches to interface mechanical machines with modern hardware via the **one-wire** protocol, and a **python** server/client model.

Huffman Lite — https://github.com/zthart/huffman-lite
Written in **C**, Huffman Lite is a huffman-like encoding and compression algorithm. Utilizing a tree structure similar to a huffman tree, Huffman Lite can encode and decode both human readible files and binary files.

CSH Compute Cluster — https://github.com/zthart/csh-slurmguide
Setup and Management of a small computing cluster create for members of the Computer Science House at RIT. Allows for users to submit jobs to be run and managed using **SLURM Workload Manager**.

Extracurricular

CSH (Computer Science House) — http://www.csh.rit.edu/
House Improvements Director — August 2016 - June 2017
Drink Administrator — March 2016 - Present
Member — August 2015 - Present

Computer Science House, or CSH, is a group of technically-minded students at the Rochester Institute of Technology that all share a goal of learning and creating through collaboration. Members past and present have been responsible for creating many projects that have seen success at RIT, as well as in the public space.