Ryan Watkins

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Experience

Oct. – Dec. 2019 **Reader**, University of California, Santa Cruz, Santa Cruz, CA.
- Grading: Reader for Introduction to Computer Networks. Graded student submitted labs, homework assignments and exams in a timely manner.

Jul. – Sep. 2019 **Software Engineering Intern**, Arista Networks, Santa Clara, CA.
- Feature Implementation: Expanded access control list matching capabilities on TCP flags using Python and C++ to help protect networks from TCP syn fragment DDos attacks. Wrote a command to configure these settings from the switch's command line interface.
- Bug Fixes: Fixed issues with internal testing tools crashing while sending TCP packets over IPv6. Closed a false positive test case in the routing tests. Removed checks on ingress interfaces when configuring egress support to avoid improper changes to topology properties.

Jul. – Sep. 2018 **Software Engineering Intern**, Gemini Design, Poway, CA.
- Embedded Systems: Developed firmware in C for a Nucleo F401re micro-controller to communicate with the company's custom board over SPI and to send and receive data through a computer's serial communication port using USART thereby enabling the company to control their custom board from a GUI.
- User Interface Design: Designed and implemented a serial communication port monitor using Microsoft Visual Studio in C# which sends and receives data from USB.
- Scholarship: Received the Gemini Design Engineering Scholarship at the end of the summer internship for my abilities to quickly come up to speed on new technologies.

Jul. – Sep. 2017 **Information Technology Intern**, Patenaude and Felix APC, San Diego, CA.
- Help Desk & Data Entry: Promptly handled repair requests on a broad range of office technologies to maximize work space efficiency. Maintained and updated electronic client data daily to ensure company information was always up to date.

Projects

rdwatkin.github.io/ryan-watkins, JavaScript | React | HTML | CSS.
Created a one-page web application for my personal website that I deployed to GitHub pages

Multi-Threaded HTTP Server, C/C++ | Linux | Git.
Created a multi-threaded HTTP Server that can handle GET, PUT and PATCH requests in C++. Synchronized with mutex locks and condition variables

Waste Assessment Android App, Java | Android | FireBase.
Developed an Android App for the UCSC IDEASS team to easily perform, store, and analyze waste audits across the campus in the effort to reach zero waste. Used Android Studio in Java connected to a FireBase database

Education

2016-2019 **The University of California, Santa Cruz**, *B.S. in Computer Science, GPA: 3.52*.
Graduated with Honors

Skills

Languages Java, C++, C, Javascript, Python, HTML, CSS
Tools Git, Unix, React, Android, Agile, Bootstrap