Ryan Frederich

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Education

University of California, Santa Cruz   **Sep 2019 - Dec 2023**
- B.S. Technology and Information Management, 3.5
- Minor: Computer Science
- Honors: Dean's list, Winter 2021 & Spring 2023

Employment

Software Engineer Intern   **Callaway**   **June 2023 - Sep 2023**
- Developed and maintained CSS and JSP code for an eCommerce website
- Managed and created reusable components via SAP Backoffice
- Automated server startup and file compilation through custom bash scripts, streamlining processes

Computer Science Instructor   **iD Tech**   **Sep 2022 - May 2023**
- Taught children ages 11-14 the basics of Python.
- Covered strings, variables, functions, classes and simple data structures.
- Accomplished teaching challenging computer science concepts by breaking them down into manageable pieces.

Projects

Personal Website: *https://ryansurf.github.io/*

Automated Irrigation System
- Automated the watering of my garden.
- Built an enclosure with a microcontroller, solenoid valve and sensor to measure a garden's soil moisture levels.
- Wrote a program in C to detect if the soil moisture content fell below a given threshold, and triggered the solenoid valve to turn so the garden could be watered.

KillFeed Bot
github.com/ryansurf/killfeed_bot
- Discord bot that notifies a Discord server every time a player eliminates another player in Bohemia Interactive's shooter game *DayZ.*
- Parses the game's logs using Python's **Requests** library.
- Can also be pinged in Discord to output the amount of players currently online.

Ocean Data Reporter
github.com/ryansurf/Surf_ScrapeV2
- Retrieves ocean data (wave height, tides, ocean and air temps) from buoys stationed along the coast.
- Sends a surf report via email to subscribing email addresses at a specified time using **cron** on a Raspberry Pi.
- Stores data in a database using **MySQL**.

Technical Skills

- **Languages:** Python, C/C++, Javascript/HTML/CSS, SQL, Bash, Assembly(MIPS)
- **Libraries and Frameworks:** React, jQuery, Flask
- **Developer Tools:** Git, Vim, Eclipse
- **Platforms:** Mac OS, Linux, Windows
- **Other:** Computer networking experience (created virtual networks using Mininet, studied network traffic with Wireshark, socket programming, LAN-wide ad blocker).