Ryan Frederich

ryanfrederich@gmail.com | (858) 334-8841 | LinkedIn: www.linkedin.com/in/ryanfreder | GitHub: github.com/ryansurf

Education

University of California, Santa Cruz   **Sep 2019 - Present**
- Bachelors of Science in Technology and Information Management
- Minor: Computer Science
- GPA: 3.5

Employment

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

Investing Instructor   **iD Tech**   **Sep 2022 - Present**
- Taught children ages 11-14 fundamentals of the stock market and investing.
- Bought $100,000 worth of stocks using a mock portfolio.

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++, Assembly (MIPS)
- **Web Technologies and Databases:** HTML, CSS, MySQL, Flask
- **Developer Tools:** Git, VS Code, PyCharm, Vim, Linux, Wireshark, Mininet
- **Platforms:** Mac OS, Linux, Raspberry Pi
- **Other:** Computer networking experience (created virtual networks using Mininet, studied network traffic with Wireshark, socket programming, LAN-wide ad blocker).