Ryan Frederich

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Education

University of California, Santa Cruz   **Expected: Dec 2023**
- B.S. in Technology and Information Management, GPA: 3.5
- Minor: Computer Science

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.

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.

Lifeguard Assistant   **San Diego Junior Lifeguards**   **Jun 2019 - Sep 2019**
- Taught children basic ocean safely and watched over them while they swam and surfed
- Directly responsible for ensuring children were picked up by a Guardian

Projects

Automated Irrigation System
- 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 sends a message to a Discord server every time a player kills another player in the zombie 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, Stata
- **Web Technologies and Databases:** HTML, CSS, MySQL
- **Frameworks & Libraries:** Flask
- **Developer Tools:** Git, VS Code, PyCharm, Vim, Linux
- **Platforms:** Mac OS, Linux, Raspberry Pi
- **Other:** Computer networking experience(LAN-wide ad blocker and VPN), knowledge of computer hardware