

# Ryan Frederich

ryanfrederich@gmail.com | (858) 334-8841 | LinkedIn: [www.linkedin.com/in/ryanfrederich](https://www.linkedin.com/in/ryanfrederich) | GitHub: [github.com/ryansurf](https://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.
- Also taught how to make basic games in Scratch

### 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](https://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](https://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
  - **Web Technologies and Databases:** HTML, CSS, MySQL
  - **Frameworks & Libraries:** 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).