Ryan Frederich

(858) 334-8841 | ryanfrederich@gmail.com | linkedin.com/in/ryanfreder | github.com/ryansurf | ryansurf.github.io

Education

University of California, Santa Cruz Sep 2019 - Dec 2023

- B.S. Technology and Information Management | Minor: Computer Science

Relevant Coursework Sep 2019 - Dec 2023

CSE 120: Computer Architecture
CSE 140: Artificial Intelligence
CSE 150: Computer Networks
CSE 101: Data structures & Algorithms
CSE 182: Database Management
TIM 175: Business strategy & Information Systems

Employment

Software Development Intern

Callaway Golf Jun 2023 - Sep 2023

- Developed and maintained **JSP** and **CSS** for a customer-facing eCommerce website.
- Developed reusable components, referencing **Figma** designs for creation and modification.
- Automated server startup and file compilation through custom **Bash** scripts, reducing start-up time by 30%.
- Managed tickets through **Jira** within an **Agile** development framework, while leveraging **CI/CD** pipelines.

Computer Science Instructor

iD Tech Sep 2022 - May 2023

- Taught students computer science fundamentals using **Python.**
- Explained basic data structures, algorithms and **object-oriented** programming concepts.

Skills

- **Languages:** Python, C/C++, Javascript, HTML & CSS, Java, SQL, Bash
- **Libraries and Frameworks:** React, jQuery, Node.js
- **Tools:** Git, Linux, Docker, Ansible, Jira, AWS(EC2, S3), REST APIs, Confluence, SAP Hybris, Figma
- **Other:** Hypervisor / Virtualization, Computer networking (Mininet, Wireshark, Socket programming, Firewalls)

Projects

Homelab

https://ryansurf.github.io/network_diagram.html

A sandbox environment that is used to learn new skills/software

- **Linux** and **Windows** based environments used to test new technologies across different operating systems.
- Implemented network-wide ad-blocking with a self-hosted **DNS** server in a **Docker** container, enhancing security.
- Set up infrastructure as code to manage and configure Virtual Machines.
- Self-hosted a secure **VPN** and integrated dynamic DNS to point to the local network's IP address.
- Configured a **VLAN** to separate guest traffic from the rest of the network.
- Examined network traffic, including **TCP/IP** and **HTTP** protocols, using a network protocol analyzer**.**

Ocean Data Reporter

https://github.com/ryansurf/Surf_ScrapeV2

- Retrieves ocean data from buoys stationed along the coast, written in **Python** and utilizes NOAA's buoy **API**.
- Sends surf reports via email at a specified time, using **cron** to achieve automation on a Raspberry Pi.
- Stores data in a **MySQL** database for analysis of trends overtime.

Interests

- Surfing, Camping/Backpacking, Dogs, Snowboarding, Homelabbing, Sudoku, Sustainability, Basketball