

Ryan Frederich

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Education

University of California, Santa Cruz

Sep 2019 - Dec 2023

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

Employment

Web Development Intern

Callaway Golf

Jun 2023 - Sep 2023

- Developed and maintained **CSS** (LESS) and **JSP** code for a B2C eCommerce website running on **SAP Hybris**.
- Managed and created reusable components via **SAP Backoffice**.
- Referenced **Figma** designs to create new components and alter existing ones and **Confluence** for documentation.
- Automated server startup and file compilation through custom **Bash** scripts, streamlining processes
- Tracked tickets with Atlassian **Jira** software in **Agile** development and utilized **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++, Java, Javascript/HTML/CSS, SQL, Bash
- **Libraries and Frameworks:** React, jQuery, Flask, Node.js
- **Tools:** Git, Linux, Docker, Ansible, VirtualBox, Proxmox
- **Other:** Computer networking experience (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 and maintained a network-wide ad-blocking solution utilizing Pi-Hole as the **DNS** server within a **Docker** container, increasing network security and efficiency.
- Set up **Ansible** to manage and configure Virtual Machines.
- Deployed a secure **VPN** using WireGuard to enable remote access to the network from any location. Utilizes a dynamic DNS to point to the local network's IP address.
- Configured a **VLAN** to separate guest traffic from the rest of the network.
- Hosts a media server (Plex) to access music/shows from anywhere.
- Conducted analysis of network traffic, including **TCP/IP** and **HTTP** protocols, using **Wireshark**.

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 database using SQL (**MySQL**) for analysis of trends overtime.