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

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++, Javascript, HTML & CSS, Java, SQL, Bash
- **Libraries and Frameworks:** React, jQuery, Node.js
- **Tools:** Git, Linux, Docker, Ansible, Jira, Confluence, Virtualization (Proxmox, VirtualBox), SAP Hybris, Figma
- **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 a self-hosted **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.
- Implemented a media server (Plex) to enable remote access to personal files from any location.
- 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 **MySQL** database for analysis of trends overtime.