

Daniel Card

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Experience

The Boeing Company

Software Engineer II

January 2023 - Present

Berkeley, MO

- Developed a Grafana monitoring dashboard to effectively visualize and analyze system metrics, with a focus on packaging persistent data into releases for streamlined deployment and integration
- Optimized C++/Clang RedHat compatibility testing by implementing Docker and parallel building, resulting in a remarkable 6x reduction in testing time
- Authored comprehensive documentation of introductory resources, expediting the onboarding process for new hires and ensuring timely assimilation into the team

Northrop Grumman Corporation

Software Engineer II

June 2021 - January 2023

Roy, UT

- Aided in the development of a React web application for the Physical Security of the U.S. Air Force's modernized ICBM – Sentinel program – to monitor missile sites to mitigate both domestic and foreign threats
- Aided in transitioning from a `cesium` mapviewer to `leaflet` mapviewer and converted `cesium` map entities with TypeScript to improve performance by 5-10x while maintaining original functionality
- Took initiative and lead troubleshooting for a workaround during an unexpected SDE migration reducing team downtime by approximately 2-4 weeks

Personal Projects

Homelab Server

May 2023 - Present

- Employed Proxmox to optimize and manage virtual machines efficiently, ensuring seamless virtualization management
- Utilized Ansible to streamline hardware provisioning and enhance the overall management of virtual machines
- Developed a `docker-compose.yml` file to simplify the deployment process of container services, improving efficiency
- Future plans involve utilizing a network interface card (NIC) for virtualizing the router, paving the way for the establishment of a load-balanced high-availability k3s Kubernetes cluster
- Aim to gradually migrate services from Docker to Kubernetes in the ongoing homelab project, enhancing scalability and reliability while leveraging the benefits of container orchestration

RFID Spotify Raspberry Pi Jukebox

April 2022 - June 2022

- Using the `spotipy` and `raspotify` python libraries, integrated a MFRC522 RFID card reader with Spotify's web API to play selected playlists and tracks through a Raspberry Pi
- Improved efficiency and scalability with JSON data storing of the RFID hash id with the associated Spotify context URL's
- Automated script start-up on boot with `crontab` and launcher shell to enable a fully functioning embedded system

Education

Georgia Institute of Technology

M.S. in Computer Science - Computing Systems

GPA: 3.50/4.00

Accolades: Teaching Assistant (TA) for Academic Integrity

Atlanta, GA

August 2022 - Present

University of Michigan

M.S.E. in Aerospace Engineering - Computation

GPA: 3.91/4.00

Accolades: Graduate Student Instructor (GSI)

Ann Arbor, MI

August 2020 - May 2021

B.S.E. in Aerospace Engineering

GPA: 3.91/4.00

September 2018 - August 2020

Awards and Accolades: Summa Cum Laude, Dean's List, University Honors, 1st Generation Engineer, 1st Generation STEM

Skills & Extracurriculars

Languages: Python, Matlab, C++, Mathematica, Arduino (C/C++ based), Javascript, TypeScript, R

Web Development: React, CSS, HTML, Django

Typesetting: L^AT_EX, Markdown, T_EX, Microsoft Word/Office

Miscellaneous: GitHub/Gitlab, Linux, Command Line Interface, VS Code, Raspberry Pi, Docker, Kubernetes