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Jaxson Pahukula

Maui, HI
www.jaxsonp.com

Young yet experienced local software engineer looking to bring my skills and passion for software to the workforce back home in Hawaii.

Education

Purdue University, B.S. in Computer Science   **August 2023 – May 2025**
Concentration in systems programming   West Lafayette, IN

Work Experience

United States Space Force, Maui High Performance Computing Center   **Summer 2025**
Software Engineering Intern   Kihei, HI

- Designed and implemented key features and bug fixes for DoD software tools used in space domain awareness, working both independently and in collaboration with a software development team.

VICEROY Maven Program, Griffiss Institute   **Summer 2024**
Research Intern   Rome, NY

- Participated in cybersecurity lectures, lessons, and research projects with various Department of Defense (DoD) personnel focused on Air Force and DoD-oriented cyber missions.
- Was selected to represent VICEROY and P3I at the Pentagon in a meeting with HON Shyu (OUSD(R&E)) and dialogued with the offices of Hawaiʻi's senators and congressmen/women in Washington DC.

Applied Research Laboratory at the University of Hawaiʻi   **Summer 2023**
Software Engineering Intern   Kihei, HI

- Collaborated on a team researching new software for accessing high performance computing systems.
- Developed backend software for a mock central administration platform for managing containerized software on servers and swarms with Python, Flask, and Docker.
- Stood up basic server metrics infrastructure with Grafana, Prometheus, and custom metrics exporters.

Data Science Labs, Calculus II   **Jan. 2023 – Dec. 2023**
Lab Instructor   West Lafayette, IN

- Taught students to apply concepts from Calculus I and II to basic data science problems in a lab setting using Jupyter notebooks, Python, Raspberry Pis, and various prototyping electronic components.
- Collaborated with other instructors and superiors to develop and refine the course curriculum.

Projects

- **PBF Leadership Dashboard /** Designed and developed a full-stack administrative platform for PBF, my church's college ministry, to streamline event planning and team coordination. We collaborated with the ministry to gather requirements and deliver a professional product using Vite/React, Python, and MySQL.
- **Docker Dash /** A proof-of-concept dashboard for administrators to manage containerized applications on a server/cluster. I worked on the backend of this web app during my internship at ARL Maui, implementing and documenting a REST API for interfacing Docker using Python and Flask.
- **JChords /** A clean sheet music sharing/editing web app being developed by my brother and I, built out of a need for a cleaner, more modern alternative to the current popular sheet music sites.
- **Circuit Court /** A prize-winning Jackbox-style game where you play as the prosecutor or the defense fighting an AI-generated legal case to an LLM judge to try to sway its verdict in your favor! Made with React, Python and a selfhosted Llama 3-8B instance in 36 hours for the Boilermake XII hackathon.
- **LilDB /** A WIP relational DBMS written from scratch in Rust, with concurrency and memory safety.
- **FactoryScript /** An graph-based interpreted esolang (esoteric programming language) themed around factories, built as a fun hobby project. Interpreter implemented with Rust.

Read about these projects and more at jaxsonp.com/projects. Sources on my GitHub.