David Sawires

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Education

Bachelor of Arts in Computer Science and Mathematics May 2024
St. Olaf College *Northfield, MN*
GPA: 3.87/4.00

- **Activities**: ΠΜΕ Honor Society, Operating Systems Teaching Assistant, Software Design Teaching Assistant
- **Awards**: Davis United World College Scholar, St. Olaf Entrepreneurial Scholar, Dean's List
- **Relevant Coursework**: Algorithms, Computational Imaging, Data Structures, Foundations of AI, Operating Systems, Computational Geometry, Computational Mathematics, Graph Theory, Probability Theory

Experience

Backend Software Engineer October 2023 – Present
Infracraft (Django, Flask, FastAPI, Python) *San Francisco, CA (Remote)*

- Developed Django data models and RESTful API endpoints for CRUD operations with sub 200ms response times.
- Created a Slack chatbot that triggers automated environment deployments and GitHub release processes.
- Built a FastAPI application for API interactions with GitHub, enabling file management, content updates, and automated release branch creation.
- Partnered on strategic direction and development approach through weekly meetings with the co-founder.

Software Engineer Intern June 2023 – August 2023
Bankbarn (Django, Python, pytest) *San Francisco, CA*

- Wrote and integrated `pytest` on-delete tests for Django models into CircleCI, increasing test coverage by 15%.
- Built and visualized logging and dashboards on Amazon CloudWatch utilizing Watchtower log handler.

Lead System Administrator September 2021 – December 2022
St. Olaf College (`bash`, Linux, VMWare) *Northfield, MN*

- Lead a team of 6 to provide IT infrastructure development & maintenance for the College's CS department.
- Upgraded high performance Linux servers, resulting in 20% fewer outages as measured by user support tickets.
- Spearheaded the deployment of eight X86 remote servers for ARM-based laptop users, reducing technical issues by 50% and enhancing student productivity.

Projects

Wearer (Personal Project) *Swift, SwiftUI*

- Created an iOS Application that utilized Core Location library to suggest clothing based on local weather.
- Designed a UI that displays weather conditions and clothing suggestions using OpenWeatherAPI data.

Vectorizer (Personal Project) *Python, SciPy, Numpy*

- Developed an image vectorization program in Python to transform images into triangulated representations.
- Implemented a threshold-based edge detection algorithm, optimizing for detail clarity through visual comparison.

Shelly (Class Project) *C*

- Programmed a command-line shell with support for IO redirection, PATH search, and directory traversal.

Chat App (Class Project) *C++, React, Python*

- Designed and implemented a user-friendly interface for a cross-platform chatting app using React.
- Utilized a Python-based server to manage data interchange between frontend and backend of the chat application.

Skills

Programming Languages: Python, C, C++, R, bash, Mathematica, SQL, Swift
Developer Tools: Git, Docker, VS Code, Linux/Unix
Libraries and Frameworks: Django, FastAPI, Flask, Pandas, NumPy, Matplotlib, SciPy, pytest