

# David Glover

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## EDUCATION

### University of California, Santa Cruz

B.S. Computer Science (Expected June 2027)

Relevant Coursework: Data Structures & Algorithms, Computer Architecture, Programming Abstractions

GPA: 3.8/4.0

## WORK EXPERIENCE

### Software & Data Intern, New Instance Coffee

June 2024 – Present

- Automated Python data pipelines and MySQL queries to analyze product performance metrics.
- Used Git for version control and deployed containerized services to test web optimizations.
- Wrote Python scripts to monitor user activity and automate report generation for management.
- Designed and implemented lightweight backend workflows improving page load and analytics speed.

### Lead Programmer, UCSC Rover Team

Sept 2024 – Present

- Lead software engineer for robotics team building computer-vision-driven autonomy systems.
- Programmed control logic and image processing in C++ and Python on Linux-based systems.
- Integrated OpenCV models for terrain recognition and data capture from dual-camera setups.
- Managed Git-based repository workflows and created modular CI/CD testing pipelines with Docker.
- Implemented automation scripts for sensor calibration and telemetry analysis.

## TECHNICAL PROJECTS

### Neural Network Card Classifier — TensorFlow, FastAPI, Docker, Kubernetes

[GitHub](#)

- Trained a convolutional neural network on 120,000+ labeled images for accurate Pokémon card recognition.
- Built RESTful FastAPI services for automated dataset ingestion, preprocessing, and model evaluation.
- Deployed containerized inference and training environments using Docker and Kubernetes for scalability.
- Designed real-time inference endpoints enabling fast image-to-class predictions.
- Integrated logging and performance metrics to monitor training accuracy and deployment reliability.

### Stock Dashboard — Flask, FastAPI, MongoDB, Docker, CI/CD

[GitHub](#)

- Developed a Flask and FastAPI web app to track brokerage accounts across multiple trading platforms.
- Integrated MongoDB for secure portfolio data storage and synchronization.
- Implemented automated capital gains tax calculations and performance analytics dashboards.
- Containerized the system with Docker and integrated CI/CD testing pipelines for continuous deployment.
- Built REST endpoints for account management, data retrieval, and historical performance visualization.

## HACKATHON PROJECTS

### SlugHub (CruzHacks 2025) — PyQt6, Flask, MongoDB

[GitHub](#)

- Built a multi-page desktop app for UCSC students featuring class scheduling, events, and persistent cloud storage.
- Developed backend APIs for authentication, event management, and class tracking with MongoDB integration.
- Designed responsive PyQt6 interfaces for data entry, course organization, and resource linking.
- Implemented live updates and data synchronization for collaborative features between users.

### SaveOurSlug (CruzHacks 2024) — Flask, JavaScript, MongoDB

[GitHub](#)

- Developed a Flask-based emergency safety app allowing users to trigger alerts, notify contacts, and share live GPS data.
- Integrated camera and location APIs for real-time safety tracking and automatic escalation to emergency services.
- Designed an accessible UI and responsive leaderboard to encourage community participation.
- Focused on optimizing API performance and database concurrency under high user load.

## SKILLS

### Languages

Python, C, C++, Java, JavaScript, SQL

### Frameworks / Tools

Flask, React, Docker, TensorFlow, OpenCV, FastAPI, Git, MongoDB

### Systems / Platforms

Linux, CI/CD Pipelines, Cloud Deployment, REST APIs, Data Automation

### Soft Skills

Collaboration, Analytical Thinking, Curiosity, Adaptability, Communication