

Jacob Lawson

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EDUCATION

University of California, Merced

May 2027

B.S. in Computer Science & Engineering

Merced, CA

Relevant Coursework: Data Structures, Algorithm Design and Analysis, Computer Architecture, Full-Stack Web Development, Database Systems, Algorithm Design & Analysis, Linear Algebra, Digital Image Processing

EXPERIENCE

Software Engineering Intern

May 2025 – July 2025

Robotics Cats

CA

- Scripted a PowerShell client polling 120 camera endpoints every 30–120s with auto-updating JSON state, achieving 100% uptime and eliminating all manual status checks.
- Built a React Native + Flask OCR pipeline processing 40 receipts/day at 96% accuracy, saving 120 min/day of manual data entry by auto-syncing line items to Google Sheets.
- Integrated Gemini LLM endpoints into a Python/Flask + React/Vite app backed by AWS, delivering real-time dynamic quiz content at ~90 ms API latency.

Student Technology Consultant

Aug. 2023 – Present

UC Merced – Office of Information Technology

Merced, CA

- Resolved 80+ ServiceNow tickets spanning OS, networking, AV hardware, and SaaS integrations for enterprise classroom systems.
- Documented recurring failure patterns in Confluence, reducing repeat escalations and improving team resolution speed.

Undergraduate Research Assistant

Oct. 2022 – May 2023

UC Merced – LInC Lab

Merced, CA

- Automated cleaning of 600+ CSV files with a Python/pandas pipeline, cutting processing time by 30% and retrieval time by 50% across 5+ studies.
- Standardized data organization protocols across 4 research projects, reducing inconsistencies by 20% and improving cross-team workflow efficiency.

PROJECTS

Bobcat Bulletin | *Python, BeautifulSoup, Flask, React, PostgreSQL, GitHub Actions, Vercel*

- Built a full-stack campus safety app scraping UCM PD incident data on a scheduled pipeline with change detection, storing structured records in PostgreSQL for historical trend analysis.
- Replaced a hard-to-navigate institutional page with a searchable, filterable feed and map view, cutting student time-to-information significantly.

LiftLabs | *React, Vite, Flask, SQLAlchemy, PostgreSQL, REST API, Vercel, Render*

- Developed a full-stack fitness forum with JWT auth, role-based moderation, and a one-vote-per-user system enforced via server-side business logic and relational data models.
- Deployed a production SPA split across Vercel and Render, resolving cross-origin auth conflicts and persistent file storage issues.

Greenview | *JavaScript, Chrome Extension API, Manifest V3, HTML/CSS*

- Shipped a Chrome/Firefox extension tagging 1000+ job listings by ATS using MutationObserver for async DOM detection and synced storage for persistent, cross-session filter preferences.

OpenGL Paint Application | *C++, OpenGL*

- Engineered a 2D paint app in C++/OpenGL with dynamic memory management and OOP design, improving runtime efficiency by 20% and reducing rendering lag by 15%.

TECHNICAL SKILLS

Languages: Python, C++, JavaScript, TypeScript, SQL, HTML/CSS, PowerShell, R

Frameworks & Libraries: React, Flask, Node.js, Next.js, Pandas, NumPy, SQLAlchemy, TensorFlow

Tools & Platforms: Git, GitHub Actions, Docker, PostgreSQL, AWS, Vercel, Render, Linux,