

Carla Hau

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Education

University of California, Riverside

Expected Graduation: June 2028

Bachelor of Science in Computer Science with Business Applications

GPA: 4.0

Relevant Coursework: Introduction to Data Structures and Algorithms, Software Construction

Experience

Amazon Web Services, Software Development Engineer Intern – Bellevue, WA

June 2025 – Present

- Developed an internal tool with Python for SageMaker AI team, automating manual processes and significantly reducing manual work time during ticket handling.
- Reduced the internal tool's runtime by 90% by concurrently executing previously sequential function calls.
- Automated manual processes by extracting and processing real-time usage metrics from Amazon CloudWatch using boto3, reducing manual effort.
- Retrieved and parsed key information from ticketing system via API for use in automated workflows.

Constellation Technologies, Frontend Development Intern – Remote

Aug 2024 – Jan 2025

- Developed a digital hub supporting students who raised \$40,000 in investments, for Constellation Technologies (a project of Constellation Foundation, fiscally sponsored by The Hack Foundation, a 501(c)(3) nonprofit)
- Developed and maintained 20+ responsive, dynamic React.js components, styled with CSS, that adapt in color and size based on backend data, to display tasks, meetings, and schedules on a digital hub.
- Improved data management by integrating Google Firebase to store and manage user-submitted form data.
- Integrated EmailJS API to automatically send form submission details to the executive team upon each submission, ensuring prompt communication.
- Ensured clarity of icons across major platforms and display resolutions by integrating MaterialUI Icons.

Leadership Experience

Cutie Hack at UCR, Lead Software Engineer – Riverside, CA

July 2025 – Present

- Developed a Discord Bot with Python to automate Discord server setup (channels, roles, categories) for Cutie Hack 2025, reducing manual configuration time by 97% and streamlining operations.
- Built and populated a Pinecone vector index by generating embeddings for text chunks from markdown files, creating the retrieval component for a RAG-powered Discord chatbot.

Projects

Bean & Do | Spring Boot, React.js, Supabase, Docker

<https://beananddo.carlahau.com>

- Developed and deployed a full-stack web application to help students stay productive using the Pomodoro technique, supporting 70+ task completions and Pomodoro sessions.
- Built REST API backend with Spring Boot for task management, reaching 88 daily API requests at peak usage.
- Developed and deployed frontend with React.js and Vercel for an interactive, responsive user interface.
- Integrated PostgreSQL database via Supabase, using UUID-based anonymous identifiers to keep user data private and prevent cross-user task visibility.
- Containerized Spring Boot application with Docker, allowing deployment of backend on Render.

Skills

Languages: Python, Javascript, C++ , Java, HTML, CSS

Technologies: React.js, Spring Boot, Google Firebase, Supabase, Pinecone, TailwindCSS, MaterialUI

Developer Tools: Git, Docker, Visual Studio Code, IntelliJ, Figma