

Gavin Sonntag

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Education

University of California, Los Angeles (UCLA)

Expected: Jun. 2027

B.S., Computer Science and Engineering | Major GPA: 3.93 | Cumulative GPA: 3.71

Los Angeles, CA

- Coursework: Software Construction, Computer Architecture, Data Structures & Algorithms, Discrete Structures

Experience

Amazon Web Services

Jun. 2025 – Present

Software Development Engineer Intern

Seattle, WA

- Developed a questionnaire-driven CMK key and role policy generator that cut manual review overhead and reduced turnaround time from 3 days to minutes by automating policy generation and validation.
- Built a React + TypeScript editor with real-time permission guardrails, preventing invalid KMS policies; designed validation framework with unit tests to ensure reliability.
- Expanded the policy approval runbook with a CMK key policy section, reducing ambiguity for manual reviewers.
- Led meetings with senior and principal engineers to refine requirements and ensure alignment with AWS KMS standards.
- Identified and fixed multiple edge cases and bugs in pre-existing code that were causing customer support tickets.
- Prototyped a serverless pipeline (API Gateway + Lambda + Bedrock) to experiment generating policies with GenAI.

Projects

BruinBite | React/Next.js, Go, PostgreSQL, Docker

May 2025

- Ingested live UCLA dining data with a fault-tolerant Python scraper and Go backend, sustaining 99.9% uptime.
- Exposed JWT-secured REST endpoints benchmarked at 35 ms (p95); supported 1,000+ votes in the first month.
- Containerized the system with Docker for reproducible deployments across development and production.

Type 1 Explained | Next.js, Stripe API, TypeScript, PostgreSQL

Jul. 2025

- Integrated Stripe checkout and subscriptions in Next.js with authenticated webhooks and role-aware access.
- Delivered a production-ready billing system for B2B and B2C with clear separation of frontend and backend concerns.
- Designed a scalable PostgreSQL schema and migration pipeline to support subscription tiers and plan upgrades.

Hot Takes | React/Next.js, Node.js, Google Gemini API, MongoDB

Mar. 2025

- Shipped a real-time debate platform in a 12-hour sprint; won 1st place in the Web category.
- Used Gemini API for structured prompts and fallacy detection; TailwindCSS + MongoDB for UX and persistence.
- Implemented live interactions with WebSockets, ensuring latency under 150ms for real-time debates.

Flight Itinerary Planner | C++

Mar. 2025

- Ingested real-world flight data to build a searchable database using a self-implemented binary search tree (BST).
- Used a modified version of Dijkstra's algorithm and A* algorithm to efficiently query multi-leg routes under constraints.
- Outputted optimal itineraries in under 1s per query (over 170,000 flights in database).

Take 5 | React Native, Expo Go

Mar. 2023

- Built a cross-platform wellness app with animated timers and quote API in 9 hours; 2nd place at HackMIT Blueprint.
- Unified Android and iOS builds via React Native/Expo, reducing development overhead by 40%.
- Designed custom art assets and UX animations to enhance user engagement during timed exercises.

Technical Skills

Languages & Scripting: Java, Go, C++, Python, JavaScript/TypeScript, Kotlin, C, SQL, Shell

Frameworks & Databases: React, Next.js, Node.js, Express, Gin, MySQL, PostgreSQL, MongoDB, Redis, Jest

Cloud & Tools: AWS (KMS, EC2, Lambda, Bedrock), Docker, Linux (multiple distributions), Git, Gradle, Maven, CMake

Awards

ACM UCLA Hack on the Hill — Best Web App

Mar. 2025

Amazon Future Engineer Scholar — \$40,000 Scholarship

Apr. 2024

HackMIT Blueprint — 2nd Place

Feb. 2023