

Vansh Sinha

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EDUCATION

Arizona State University

Tempe, AZ

B.S. in Computer Science | Minor in Data Science | GPA: 3.8/4.0

Aug. 2023 – May 2027

- **Relevant Coursework:** Distributed Systems, Data Structures & Algorithms, Operating Systems, Software Engineering, Theory of Computing, Linear Algebra, Multivariable Calculus, Database Systems

WORK EXPERIENCE

American Express

June 2026 – Aug. 2026

Software Engineer Intern | Global Loyalty Benefits

Phoenix, AZ

- Shipped remove, revert, and rollback controls for Loyalty's internal release management platform (Go, React, PostgreSQL), closing a gap that had forced engineers to fix bad deployments by hand. Promoted the feature from local through E1 and E2, with E3 production rollout underway.
- Designed and built a configurable actions and conditions framework powering Hawk's release notification system, giving release managers, engineers, and release commanders automated Slack alerts for pre and post release milestones, unapproved RFC checks, and code check in deadlines.
- Built the scheduling engine end to end, including the rules UI, with retries, idempotency, and backoff so time sensitive release alerts fire reliably even under failure. Replaced a process that previously relied on manual tracking.

Wimoku

June 2025 – Present

Software Engineer Intern | Data Infrastructure

Remote, USA

- Built a real time financial data pipeline with Google Pub/Sub and Apache Beam, streaming market data into BigQuery to power downstream analytics.
- Redesigned the pipeline from a managed Dataflow streaming setup to Pub/Sub and Cloud Functions, cutting infrastructure cost while keeping throughput and fault tolerance intact.
- Shipped a Dockerized Kubernetes CronJob service for scheduled, audited BigQuery query execution, replacing manual query runs with a reliable automated process.

PROJECTS

Savemygrade: Multimodal Study System | *Next.js 15, FastAPI, ChromaDB, Gemini, SQLite, TypeScript*

2026

GitHub

- Built a local-first study platform that ingests text, PDFs, images, videos, and YouTube URLs into a single knowledge base; integrated Gemini for multimodal embeddings and generation, enabling semantic search over 768d vectors with course-scoped isolation and grounded RAG chat.
- Engineered a background ingestion pipeline with SQLite-managed state machines (queued/running/complete/failed) and ChromaDB for similarity search, supporting concurrent uploads, cancellation, and crash recovery via a startup orphan-job sweep, eliminating perpetual UI spinners.
- Designed a five-state flashcard generation engine with staleness detection based on content timestamps, storing generation runs and source citations to preserve existing decks on failure and accurately reflect when material has been updated.
- Built a live knowledge graph from Gemini-extracted concepts at ingest, rendering an interactive force-directed visualization with course-colored nodes and relation edges, enabling concept-level navigation back to exact source chunks.

GitHired: Resume Version Control SaaS | *Next.js 14, PostgreSQL, Prisma, Clerk, Claude API*

2026

- Built a full-stack SaaS that applies Git branching concepts to job searching – users maintain a master resume, branch role-specific versions, and every application is logged against the **exact version sent**, enabling per-version response and interview rate analytics across a 5-stage pipeline.
- Integrated the Anthropic Claude API to stream per-finding resume analysis on load; each finding surfaces inline **"Improve with AI Interview"** triggers that launch a structured interview session scoped to that specific weakness and write edits back to the resume entry on save.
- Shipped a Chrome MV3 browser extension that auto-detects job listings on LinkedIn, Greenhouse, Lever, and Workday, captures the full job description, and logs the application – auto-linked to the resume version active at time of submission – without leaving the job board.

TECHNICAL SKILLS

Languages:

Python | Go | Java | C/C++ | SQL | TypeScript | HTML/CSS

Frameworks/Technologies:

React | Next.js | FastAPI | Node.js | Tailwind | Apache Beam | pandas | NumPy
PostgreSQL | BigQuery | Prisma | Docker | Kubernetes | GCP | Git | Stripe