

Omkar Chhabra

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SUMMARY

Entry-level **Software Engineer** with experience in **backend API development** and **cloud-native systems**. Delivered **automation projects** that improved **workflow efficiency** and built **AI solutions** using **vector search** and **LLM embeddings**. Skilled in shipping **end-to-end features** and supporting peers through **tutoring**. Aiming to help deliver **scalable, high-impact software products**.

EDUCATION

California State University, Long Beach
Bachelor of Science in Computer Science (GPA: 3.4)

Long Beach, CA
Jan 2022 – Dec 2025

TECHNICAL SKILLS

Languages: Python, Java, C/C++, Go, Kotlin, SQL, JavaScript

AI/ML: RAG, LangChain, Embeddings, Vector DBs (Pinecone), Prompt Engineering, LLM Evaluation

Cloud/DevOps: AWS (EC2, S3, IAM), Docker, Kubernetes, Helm, Jenkins, ArgoCD, GitHub Actions

Frameworks: Next.js, React, Spring Boot, REST APIs

Databases/Tools: PostgreSQL, MongoDB, Linux, Prometheus, Grafana, SonarQube, Trivy, Jira

EXPERIENCE

Computer Science Tutor – College of Engineering Tutoring Center
California State University, Long Beach

Aug 2025 – Dec 2025

- Tutored **20+ students/week** across **5+ CS domains (DSA, OS, DB, Networks, ML)** using hands-on coding + whiteboard breakdowns.
- Led **10+ hours/week** of 1:1 + group support sessions, covering **15+ recurring topics** like **complexity, SQL joins, threading, and model evaluation metrics**.
- Debugged **15+ Python/Java assignments/week** involving **REST APIs, performance bottlenecks, memory usage, and algorithm optimization**.

Lead Office Assistant – Facility Operations
California State University, Long Beach

Feb 2024 – Dec 2025

- Automated **3 recurring workflows** using **Python scripts, Excel macros, and SQL queries**; cut RPP processing time from **15 to 5 minutes (67% faster)**.
- Managed tracking and audits for **\$800K+** in assets across **5 locations**, reducing inventory discrepancies by **30%** using **validation-driven logs**.
- Standardized **5+ reporting templates** and cleanup pipelines, reducing manual effort by **40%** and improving **data consistency** across weekly operations.

PROJECTS

Beach Bank – Full-Stack Banking App

Nov 2025

Next.js 14, TypeScript, PostgreSQL, Plaid, Dwolla

- Architected **10+ backend API routes/workflows** for multi-account banking, supporting **3 core flows: transactions, transfers, and balance analytics**.
- Integrated **Plaid + Dwolla** for account linking and **ACH transfers**; implemented **JWT-based session handling with 2-step token validation** for secure money movement.
- Engineered **PostgreSQL schema** with **6+ tables** and optimized **8+ high-traffic queries** using **indexing + joins** for scalable user/account/transaction operations.

DevSecOps – Netflix Clone Deployment on AWS

Jul 2025

Jenkins, Docker, Trivy, SonarQube, Kubernetes, Helm, ArgoCD

- Orchestrated a **4-stage CI/CD pipeline** (build, test, scan, deploy) using **Jenkins + Docker**; blocked **15+ vulnerabilities** with **Trivy/SonarQube gates**.
- Deployed **Kubernetes workloads** using **3+ Helm manifests** and **GitOps automation** via **ArgoCD**, enabling repeatable releases across multiple environments.
- Instrumented **5+ monitoring panels** in **Grafana** with **Prometheus metrics** to track availability, resource usage, and deployment health signals.

ProfScore | Rate My Professor AI

May 2025

Next.js, TypeScript, Tailwind, LLM API, Pinecone

- Developed an AI professor-rating platform in **Next.js** handling **100+ requests/min**, generating **structured summaries, sentiment insights, and contextual responses**.
- Implemented **Pinecone vector search** with **embeddings** to support **retrieval-based answers**, improving relevance for query-to-review matching across large datasets.
- Designed **3-section response formatting** (summary, pros/cons, recommendations) to produce consistent outputs and reduce noisy/unstructured responses.