

Akshay Kamath

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EDUCATION

San José State University

Expected December 2027

Bachelor of Science in Computer Science

GPA: 3.7/4.00

Coursework: Data Structures & Algorithms, Object-Oriented Programming, Operating Systems, Computer Systems, Software Engineering, Database Management Systems

EXPERIENCE

Cisco

June 2025 – August 2025

Software Engineer Intern

Durham, NC

- Built a LangChain chatbot answering revenue queries for 50+ team members, saving 20–40 hrs/week.
- Cut query latency from 30–60 s to 3–10 s on 200K+ rows by rewriting an 11-table SQL query with Redis caching.
- Sustained 99% uptime with automated testing, Kubernetes deployments on Cisco Cloud, and Webex alerts.

Tesla

January 2025 – May 2025

Software Engineer (Contract)

San Jose, CA

- Developed a mapping tool to identify 126 priority EV charger deployment sites from 12K+ parking lots.
- Engineered KMeans clustering on OpenStreetMap data; interactive map renders in 20–30 s with GitHub Actions.
- Enabled 8 consultants to cut ownership lookup from 5 min to 45 s via scraper + API wrapper, yielding 1K+ leads.

Cisco

June 2024 – August 2024

Software Engineer Intern

San Jose, CA

- Architected a distributed pub/sub pipeline to move 10K+ financial records/day across internal teams via Kafka.
- Reduced peak consumer lag from 10 min to under 3 min with a custom load-testing producer on AWS.
- Stress-tested Kafka configs: idempotency, partition tuning, and replication settings until achieving < 1% errors.

San José State University

December 2023 – May 2025

Undergraduate Researcher

San Jose, CA

- Collaborated with Dr. Sengupta to build a Li-ion battery life prediction pipeline in PyTorch.
- Produced 12 charts with RE/MAE/RMSE metrics testing Gaussian/Poisson/Speckle/Uniform noise for [paper](#).
- Benchmarked 7 models, achieving up to 63% error reduction vs. LSTM on NASA and CALCE datasets.

PROJECTS

OrderFlow | *Java 17, Spring Boot, JUnit, JMH*

January 2026 – Present

- Built low-latency in-memory order matching engine (LIMIT/MARKET/IOC) with price–time priority.
- Distributed matching across 4 per-symbol shards via command queues, using lock-free concurrency on hot path.
- Reached 193K orders/sec with p99 42 μ s; validated via JMH benchmarking, SHA-256 replays, and 25 JUnit tests.

PUnit | *Python, FastAPI, React, TypeScript, SQLite, NumPy, pandas, Docker*

February 2026 – Present

- Architected a stock backtesting/forecasting app with 6 API endpoints, 11 scenarios, and 6+ CSV formats.
- Modeled dollar forecasts with correlated Monte Carlo (Cholesky+jitter), up to 50K sims/run; p5/p50/p95 bands.
- Enforced correctness via SQLite price caching + run history/compare; ran 88 tests with GitHub Actions CI/CD.

Strands | *Java, Spring Boot, React, PostgreSQL, Docker*

January 2025 – May 2025

- Engineered a Threads-style social app with Spring Boot REST APIs, React UI, and PostgreSQL.
- Implemented feed, search, likes, and follow/unfollow using SQL joins across PostgreSQL tables.
- Containerized services with Docker Compose + init scripts and env-based config for deployment.

TECHNICAL SKILLS

Languages: Python, Java, C, JavaScript, SQL

Frameworks: Spring Boot, FastAPI, Flask, Express, React, JUnit, pytest, LangChain

Databases: PostgreSQL, SQLite, Redis (NoSQL)

Developer Tools: Git, Linux/Bash, Docker, Kubernetes, Jenkins, GitHub Actions, CI/CD, AWS, GCP, Kafka

Libraries: NumPy, pandas, scikit-learn, SQLAlchemy, Matplotlib