

Laksh Jethani

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EDUCATION

University of Southern California

Master of Science, Computer Science

Relevant: Data Structures and Algorithms, Natural Language Processing, Web Technologies

Aug 2024 – May 2026
Los Angeles, CA

University of Mumbai

Bachelor of Engineering, Computer Science

Relevant: Parallel and Distributed Systems, Network Security, Operating Systems

Aug 2018 – May 2022
Mumbai, India

EXPERIENCE

Software Engineer Intern, *Supplyframe, a Siemens Company* — Los Angeles, CA

May 2025 – Present

- Cut **p95 API latency by 20%** (480ms → 380ms) through exponential-backoff retry logic for Swagger tokens and a tighter Solr payload flow, lowering request volume and boosting responsiveness on high-traffic paths.
- Rolled out a hardened **OAuth2 sign-in flow** with **CSRF safeguards** and **Redis-based scope caching** for [dev.hackaday.io](#) (**1M+ users**), closing replay vectors and strengthening auth consistency.
- Rebuilt [dev.hackaday.io](#) into a modular EJS component system backed by Storybook, aligning UI patterns and speeding up design-QA review cycles by **25%** while raising Core Web Vitals scores.

Senior Software Development Engineer, *Deutsche Bank* — Pune, India

Aug 2023 – Jul 2024

- Engineered a **Kafka-driven retry pipeline** with idempotency keys, transactional outbox, DLQs, and jittered offset-managed retries, lifting payment success by **21%** on a **\$300M+/day** platform and lowering reconciliation and on-call escalation rates.
- Migrated Fabric from on-prem to **GCP** through Infrastructure as Code and seamless blue-green deployments, refining autoscaling rules and multi-zone topology to lower run cost by **17%** and strengthen failover resilience across three zones.
- Integrated **Azure MFA** with a custom **OIDC** provider to federate external users, enforce Conditional Access with step-up authentication for sensitive scopes, and unify claims and token lifetimes, leading to fewer login issues.
- Mentored two new grads through code reviews and debugging sessions, accelerating onboarding and raising overall PR quality.

Software Development Engineer, *Deutsche Bank* — Pune, India

Aug 2022 – Jul 2023

- Maintained SLAs on critical paths with **circuit breakers**, idempotent retries, and full **observability** (metrics, logs, tracing).
- Decomposed a monolith into **scalable Spring Boot microservices**, adding thread-safe **concurrency controls** and circuit breakers for resiliency, eliminating race conditions and lowering failure rates.
- Enhanced **React + Redux** architecture with optimized state handling, memoization, and lazy loading; added GraphQL/REST integration with caching and pagination, cutting re-renders by **40%** and boosting responsiveness by **25%**.
- Led UAT cycles with 10+ users and analysts, prioritizing feedback to enable delivery of **3 key features** in the next release.

Software Development Engineering Intern, *Deutsche Bank* — Pune, India

Jun 2021 – Aug 2021

- Built a sharded cache with **Redis Cluster** and Spring Boot, applying consistent hashing, Raft-style leadership, and quorum reads/writes to scale to **millions of keys** and serve **10+ downstream services** without data loss during node failures.
- Applied **Merkle trees**, gossip protocols, and **Bloom filters** to prevent cache stampedes and cut redundant calls.

SELECTED PROJECTS

Distributed Observability Pipeline — Go, Kafka, OpenTelemetry, Elasticsearch ([GitHub](#))

Feb 2025 – Apr 2025

- Engineered a distributed observability pipeline as a self-initiated grad project in **Go**, with Kafka ingesting and indexing high-volume **OpenTelemetry** traces and logs (millions of events/minute) into **Elasticsearch** for real-time analysis.
- Deployed on **Kubernetes** with fine-grained **RBAC** for scalable and secure operations; built in fault tolerance and automated alerting, resulting in **99.9%** pipeline uptime.

MCP SafeSQL — TypeScript/Node.js, SQLite/Postgres ([GitHub](#))

Dec 2024 – Jan 2025

- Model **Context Protocol** server exposing a read-only **sql.query** with allowlisted views, parameterized queries, and PII masking across **40 + columns**; adds RBAC, audit logs, pooling, and OpenTelemetry for SQLite/Postgres
- **Safe EXPLAIN:** Returns the operator tree with cost and row estimates without executing, redacts identifiers and literals, fingerprints statements for caching, and flags full scans or missing indexes on **50+** test queries

TECHNICAL SKILLS

Languages: **Java, C++, Go, Python, Android (Kotlin), TypeScript, JavaScript, SQL, HTML, CSS**

Backend: **Spring Boot, Node.js, Express, REST, Apollo GraphQL, Django, JPA, Hibernate, OpenAPI**

Frontend: **React, Redux, EJS, SCSS, Storybook, Bootstrap, WCAG 2.1**

Data & Messaging: **PostgreSQL, MySQL, MongoDB, Redis, Apache Solr, Kafka, Celery**

Cloud & DevOps: **GCP, AWS (EC2, S3, Elastic Beanstalk), Docker, Kubernetes, GitHub Actions, Jenkins**

Observability & Quality: **OpenTelemetry, distributed tracing, JUnit, Mockito, Jest, Playwright, ESLint, Prettier, Nginx**

Auth & Security: **OAuth2, OIDC, CSRF, Azure MFA**