

NIKHIL LONDHE

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EDUCATION

Carnegie Mellon University (CMU) - School of Computer Science Master of Software Engineering Courses: Database Systems, Search Engines, Software Architecture, Quality Assurance, Software Project Management	Pittsburgh, PA Dec 2025
University of Mumbai (MU) - Fr. Conceicao Rodrigues Institute of Technology Bachelor of Engineering in Computer Engineering	Mumbai, India May 2019

EXPERIENCE

Surefront (Audit Logging & Process Analytics Platform) Team Lead (CMU MSE Capstone Project - delivered with Surefront as a production feature in active use)	Jan 2025 - Dec 2025
<ul style="list-style-type: none">Led a 6-engineer team to architect a cloud-native audit logging and process mining system (Python, Django) processing 60M+ event logs/day, delivering real-time product change logs for executive clients.Built a replicated event ingestion pipeline by instrumenting a single request hook across an 800K-line codebase, validating <10 ms/event latency overhead via load and failure-scenario stress tests, cutting root-cause analysis time 99%.Architected a business analytics pipeline with optimized schema and query paths, enabling <1s aggregations on 100M rows and 99.9% uptime, reducing time-to-insight from weekly to real-time.	
Orah (Core Product Backend) Software Development Engineer II <ul style="list-style-type: none">Led a 4-engineer team to launch self-serve trial onboarding (TypeScript, Node.js) with demo-data seeding, feature gating, and automated expiry and upgrade workflows, eliminating manual trial setup effort 100%.Built a multi-tenant, cloud-native recurring-events engine using an RRULE-based recurrence model with per-instance overrides and asynchronous processing across 500+ schools, saving 11,600+ staff-hours.Led a cross-team effort to ship Student Information System (SIS) sync APIs for Blackbaud by offloading updates to background workers and isolating integration logic from the core Events request path, processing 22K+ events/day.	Apr 2022 - May 2024
Larsen & Toubro Infotech (Engineering Productivity & Infrastructure) Software Engineer <ul style="list-style-type: none">Implemented automated regression testing for an internal testing platform (Java, Spring Boot), adding built-in coverage analysis, speeding up release cycles by 16% for 10+ enterprise engineering teams.Improved test quality and adoption of internal testing platform, raising test coverage from 20% to 97% and reducing post-release bugs by 60% by enforcing coverage standards and streamlining testing workflows.	Jun 2019 - Apr 2022

PROJECTS

Database Internals (C++) Bustub – Database Systems CMU <ul style="list-style-type: none">Implemented core DBMS internals, including a thread-safe buffer pool (8-thread contention-tested, 100K+ ops/thread), a concurrent B+ Tree index (10-thread insert/delete, 5K+ keys), and a full query engine with joins, sorting, and aggregation.Constructed MVCC concurrency control ensuring ACID compliance and high-throughput transaction processing under contention, validated on 1M+ row datasets and randomized workloads.	Jan 2025 - Apr 2025
Search Ranking & Retrieval Engine (Python) Search Engine CMU <ul style="list-style-type: none">Developed a search engine from scratch with BM25, Boolean, fielded, and learning-to-rank pipelines; evaluated across 4 TREC-style datasets with 10K+ queries and 40+ ranked lists, with performance measured via MAP and α-NDCG.Engineered multistage re-rankers with BERT and Coordinate Ascent, doubling MAP, α-NDCG, and multi-intent precision by up to 120% across diverse retrieval tasks, documented in a detailed evaluation report.	Aug 2024 - Dec 2024

SKILLS

Programming Languages: C++, Python, Java, GoLang, TypeScript, JavaScript, SQL, Rust, C.
Frameworks & Libraries: Node.js, Express, React, Next.js, Angular, Django, Spring Boot, Jest.
Databases: PostgreSQL, MySQL, DynamoDB, MongoDB, Redis, Elasticsearch.
Cloud & Infrastructure: AWS, GCP, Docker, Kubernetes, Terraform, Kafka, Spark, Airflow, Unix/Linux.
DevOps: Git, GitHub Actions, Jenkins, CircleCI, CI/CD, Datadog, SonarQube, Bash scripting.
Practices & Engineering: System Design, API Design, Data Structures & Algorithms, Testing, Observability (SLOs), Design Patterns.
Certifications: Certified ScrumMaster (CSM).

AWARDS & ACCOMPLISHMENTS

<ul style="list-style-type: none">LeetCode 1900+ rated Top 4% 1200+ problems solved.3rd Place Winner - CITAP SITAC (National Software Architecture Competition).South Asia Regional Finalist, TopCoder Open Algorithm Competition.	Dec 2025 May 2025 Apr 2021
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