Aditya Singh

+91 8429822261 blusinghaditya@gmail.com linkedin.com/in/sulphuric github.com/waterma1one

Experience

Stock Unlock (YC W22) | ***Python, FastAPI, PostgreSQL, AWS, TypeScript*** Feb 2025 – May 2026

Software Engineer *Remote — Pune, India*

- **Designed and built the Super Investor Portfolio Tracker independently** using an **idempotent, EventBridge-scheduled AWS Lambda ETL pipeline** that processes SEC 13F filings under rate-limited external APIs, reconciles amendments and multi-manager CUSIPs, and derives quarter-over-quarter positions in PostgreSQL; built to scale from 4 to 40+ investors via config-driven onboarding, with retry/recovery logic and automated tests
- **Built a Python ETF scoring service** that batch-joins precomputed stock scores from **Amazon S3** with holdings weights from **PostgreSQL**, avoiding per-holding queries and serving **sub-100ms responses** regardless of ETF size (500+ holdings) to a React/TypeScript UI with virtualized tables
- **Operated backend services in production** on **AWS Lambda, Fargate, and EventBridge** behind **FastAPI**, owning on-call debugging through CloudWatch; extended existing APIs for public and authenticated access to system-owned portfolios with no new routes or schema changes
- **Built an AI-powered support automation service** in Python using **OpenAI and Pinecone** to classify customer emails, retrieve and deduplicate historical support context via vector search, and generate draft replies for human review

CDK Global | ***Java, Spring Boot, PostgreSQL, AWS, Azure, CI/CD*** Apr 2024 – Feb 2025

Associate Software Engineer *Pune, Maharashtra*

- **Developed Java/Spring Boot microservices and REST APIs** for identity and access management (IAM) and role-based access control (RBAC) workflows across a **10+ service, service-oriented SaaS** dealership platform, supporting concurrent requests
- **Optimized PostgreSQL queries across databases containing 1M+ records** by refining indexes and rewriting queries and aggregations to improve data-access efficiency
- Contributed to **multi-cloud AWS/Azure deployments** through CI/CD pipelines, **Istio** service mesh initiatives, and the LaunchDarkly to **Harness feature flag** migration; **participated in on-call** and expanded automated testing and monitoring through Cypress, telemetry, and health checks

CDK Global | ***Java, Spring Boot, React, TypeScript, PostgreSQL, JUnit*** Feb 2023 – Apr 2024

Software Engineer Intern *Pune, Maharashtra*

- Contributed to modernizing Common Admin applications from **Angular to React/TypeScript**, improving maintainability and test coverage
- Developed production Java code for retail modules using **JUnit and test-driven development (TDD)**; participated in **50+ technical code reviews** covering code quality, algorithmic efficiency, and concurrency

Projects

RTSP Stream Viewer | ***Go, FFmpeg, WebSockets, Docker, React, TypeScript*** |

- Built a **concurrent Go streaming server** that remuxes RTSP camera feeds through FFmpeg into fMP4 and fans out over **WebSockets**, sharing **one FFmpeg process per source across all viewers** with non-blocking broadcast, slow-consumer eviction, and bounded stream limits
- Added **fault tolerance** (backoff reconnects, stall watchdog) and **SSRF protection** for user-supplied URLs; verified with **race-detector tests** and ran 3 live streams at **9% of a CPU core and 116 MB** in a 0.1 CPU container

Technical Skills

Languages: Java, Python, Go, SQL, TypeScript
Frameworks & Mobile: Spring Boot, FastAPI, REST APIs, Microservices, WebSockets, React.js, React Native, Angular
CS Fundamentals & Testing: OOP, Data Structures, Algorithms, Distributed Systems, Service-Oriented Architecture, Concurrency, Fault Tolerance, TDD, JUnit, Cypress
Cloud/Infra & Databases: AWS (Lambda, Fargate, EventBridge, S3, CloudWatch, Cognito), Azure, Docker, Istio, CI/CD, Harness, PostgreSQL
AI/ML: RAG, Vector Databases, LLM Integration, OpenAI API, Pinecone, LangGraph

Education

Bharati Vidyapeeth Deemed University College of Engineering Pune, Maharashtra

Bachelor of Technology in Computer Science and Business Systems (CGPA: 8.52 / 10) *July 2019 – May 2023*