Sumit Kumar Mallick

Bengaluru, KA, India | 7063760250 | mallicksumit546@gmail.com
GitHub | LinkedIn

Summary

Senior Backend Engineer with 5+ years of experience designing **scalable data systems, developer platforms, and AI-integrated backends** across fintech, e-commerce, and B2B analytics. Expert in **Distributed Systems(REST API, gRPC)** with **Java(Spring)** and **Python(FastAPI, Flask)** with production experience on **AWS**. Adept at building **fault-tolerant microservices**, **data-driven automation**, and **observability frameworks** serving billions of events daily. Skilled in infrastructure design using **Kubernetes**, **Terraform**, and **Ansible** with a strong grasp of distributed system fundamentals, performance optimization, and API scalability.

Professional Experience

Hypersonix.ai — Software Development Engineer III

May 2024 – Present, Bengaluru

- Spearheaded backend design for **ProfitGPT**, an LLM-based intelligence agent integrating multi-cloud data pipelines across **AWS, Snowflake, and Databricks**, powering real-time insights for enterprise clients like **Amazon** and **Coupang**.
- Built a **distributed data orchestration framework** using **Airflow**, async **Python** jobs, **DynamoDB**, **AWS Lambda** and event streaming—reducing job execution latency by **40%** and enabling **auto-recovery for pipeline failures**.
- Designed **self-healing observability dashboards** with React, MLflow, and TypeScript APIs, improving RCA resolution speed by **30%** and cutting downtime during data outages.
- Defined and deployed **IaC automation** using Terraform and Serverless—cutting provisioning overhead by **60%** and improving environment reproducibility for staging/production sync.

ShopSe — Software Development Engineer II

Sep 2022 – May 2024, Bengaluru

- Architected **distributed, event-driven microservices** with **Java Spring Boot** and **Python Flask**, driving a **30% boost in concurrent transactions** while sustaining **99.9% uptime**.
- Built **Kafka-based event streaming** for payments and risk engines, enabling asynchronous workflows for transaction validation, reconciliation, and notifications.
- Integrated major BaaS connectors (**Apple Pay, Vivo, MSI, Oppo**) to onboard over **1 million active users** and reduce partner API latency by **25%**.
- Enhanced the DevOps pipeline by migrating from Jenkins to GitHub Actions with **parallel DAG workflows**, achieving **40% faster deployment velocity**.
- Implemented **fine-grained service observability** using Datadog/ELK, proactively detecting bottlenecks and reducing MTTR by **40%** across payment clusters.

Avataar.ai — Software Development Engineer II

Jun 2020 – Sep 2022, Bengaluru

- Delivered large-scale backend APIs supporting AR/VR experiences, 3D asset streaming, and payments using **Node.js**, **Python Flask**, and **AWS Lambda + EC2 clustering**.
- Refactored legacy sync workflows into **async event queues** with Kafka + Celery, boosting throughput by **50%** while maintaining transactional integrity.
- Optimized **MySQL and MongoDB query indexes** across cluster nodes, delivering a **22% reduction in response times** and improving data consistency under load.
- Implemented **multi-region failover architecture** using Terraform and Route 53 failover policies, improving **SLA from 79.7% to 97.9%**.
- Established CI/CD observability via Datadog and Airflow DAG tests, reducing pipeline rollbacks by **35%** and increasing release consistency.

Embibe — Software Development Engineer I

Jul 2019 – Jun 2020, Mumbai

- Built REST and batch processing APIs in **Spring Boot** and **Flask** supporting 10M+ learning events for adaptive education platforms.
- Designed **automated ECS/Jenkins CI/CD pipelines, AWS S3 + Lambda triggers** with rollout canaries and automated rollback logic, cutting deployment time by **30%**.
- Implemented request queuing, local cache pipelines, and database denormalization, improving query throughput by **18%** across API clusters.

Skills

- **Core Expertise:** Distributed Systems, Backend Architecture, Developer Platform Engineering, CI/CD(Jenkins), AI-driven Infrastructure
- **Languages:** Java, Python, JavaScript, TypeScript, Go (working knowledge)
- **Frameworks:** FastAPI, Flask, Spring Boot, Node.js, NestJS, React, Next.js
- **Cloud & Infrastructure:** AWS (EKS, EC2, Lambda, S3, DynamoDB, Athena), GCP, Terraform, Ansible, Docker, Kubernetes, Serverless
- **Data Systems:** Airflow, Databricks, Snowflake, Kafka, Redis, PostgreSQL, MongoDB, DynamoDB
- **Observability:** Prometheus, Grafana, ELK, Datadog, MLflow, Sentry

Education

B.Tech. in Computer Science & Engineering
Lovely Professional University | Focus: Data Structures, OS, Cloud Computing, Distributed Systems