

Shubh Gupta

Software Engineer

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Summary

Software Developer with over **5** years building secure, scalable systems across microservices, real-time streaming, and cloud infrastructure. Strong in **Java/Spring Boot, React, Kafka, AWS, CI/CD, and production reliability**.

Technical Skills

- **Languages:** Java, JavaScript/TypeScript, Python, SQL
- **Backend:** Spring Boot, Spring Security (familiar), JPA/Hibernate, REST APIs, microservices, event-driven architecture
- **Data & ML (working knowledge):** Kafka-based streaming, analytics dashboards, GPT-4/LangChain integrations, vector DB (Pinecone) for RAG workflows
- **Datastores:** PostgreSQL/MySQL, MongoDB, Redis
- **Cloud/DevOps:** AWS (API Gateway, WAF, Cognito/OIDC, EKS/Fargate, CloudWatch), Docker, Helm, Kubernetes, CI/CD (CodePipeline/CodeBuild)
- **Frontend:** React, React Query, HTML/CSS; responsive UI

Professional Experience

BNY Mellon – Software Developer

06/2024 – Present

Remote, USA

- Developed an **AI-driven real-time transaction monitoring platform** using Apache Kafka and Spring Boot microservices to detect anomalies and potential fraud in payment workflows, **improving detection speed by 40%** and reducing false positives.
- Architected scalable microservices for trade settlement and reconciliation using Java Spring Boot, Spring Data JPA, and Hibernate with event-driven design patterns; exposed secure REST APIs via AWS API Gateway and WAF.
- Built responsive React dashboards for portfolio managers and operations teams using React Query for efficient state management and real-time streaming of transaction and risk metrics.
- Integrated GPT-4 with LangChain and Pinecone vector DB to extract insights from communications and automate compliance checks across email/chat/document streams, **improving regulatory audit readiness by 50%**.
- Integrated AWS Cognito and OpenID Connect for enterprise SSO across banking platforms, **reducing support tickets by 22% and supporting compliance requirements**.
- Containerized and orchestrated services on AWS EKS/Fargate with Docker/Helm; added observability using CloudWatch, X-Ray, and SNS alerts to improve incident response.

Ernst & Young LLP – Software Engineer

07/2021 – 07/2023

Mumbai, India

- Optimized fraud detection pipelines on financial datasets using Python and AWS, **reducing model training time by 40% and false positives by 25%** by improving preprocessing, evaluation logic, and pipeline performance.
- Automated deployment of containerized services on AWS EC2 using Docker and scripts, **reducing rollout time by 30%** by implementing reproducible workflows and integrating with CI/CD.
- **Reduced AWS infrastructure costs by 20%** via cleanup automation, tagging, and scheduled shutdown of idle resources.
- **Improved monitoring and failure detection by 35%** through Splunk integration for log aggregation, dashboards, and alerting across inference endpoints and backend services.

Kings Expomedia Ltd. – Software Engineer

12/2019 – 04/2021

Mumbai, India

- Migrated the flagship website from legacy PHP to Next.js with mobile-first responsive design, **improving average user session time by 30%**.
- Improved performance by 40% in LCP and FID metrics using lazy loading, bundling, and route-based code splitting.
- Integrated Strapi CMS to enable real-time content management and automated publishing, **reducing editorial turnaround by 50%**.
- Owned end-to-end SDLC delivery (architecture, implementation, testing, deployment) and collaborated cross-functionally with UI/UX, stakeholders, and QA.

Education

Boston University, Boston, MA, USA

08/2023 – 01/2025

M.S. in Computer Science

University of Mumbai, Mumbai, India

08/2019 – 07/2023

B.E. in Information Technology