

PREETI GUPTA

Software Engineer | Python, Java, AWS
+44 7899796149 | preetija34@gmail.com | linkedin.com/in/preeti-gupta-1759931ba

SUMMARY

Software Engineer with 4 years of experience building high-throughput financial systems at JPMorgan and Trade Republic. I have worked in the trade lifecycle, from creating orders to clearing them and booking them into GMI. I help fintech platforms process millions of transactions reliably using AWS, Kafka, and Microservices—scaling throughput and cutting latency by 40%.

EXPERIENCE

Trade Republic – Software Engineer (IC3) – London, UK

Jul 2026 – Present

- Developing a backend feature for **FTT (Financial Transaction Tax)** using **Kotlin, Kafka and Spring Boot, jOOQ/PostgreSQL, RabbitMQ, gRPC and GraphQL on AWS EKS**, supporting Italian, French and Spanish FTT calculation, daily netting and provider reconciliation across TR's European branches
- Fixed invalid corporate actions pending with external tax providers, resolving 1,000+ affected customers across TR's European branches.

JPMorgan Chase – Associate Software Engineer – London, UK

Feb 2023 – Jul 2026

- Redesigned legacy allocation & clearing backend (Disruptor & GemFire-based) using **AMPS View Server on EC2 with external EBS** volumes to serve same-day data faster, **reducing latency by 40%**. Integrated **Kafka Connector and Spring Cache** into the redesigned system, improving **throughput by 70%**.
- Contributed to building a **UI using React/TypeScript** to display live and historical streaming data from a new allocation & clearing backend system and support **trade lifecycle actions**.
- Built an **AI-powered Support Bot** in **Python** using the **OpenAI API, MCP, and RAG** with OpenSearch as the vector store, reducing engineer and **PM support time by 50%**; also developed a **New Joiner Bot** to accelerate team onboarding.
- Automated US Trade Desk migration** from legacy systems to Athena (internal **Python-based** platform), reducing **cross-book trade-booking latency by 30%** and eliminating 5 manual deployment steps.
- Designed and implemented **multi-region active-passive failover** architecture using Route53/Terraform/RDS, **eliminating single-region dependency** and reducing potential recovery time **from 5 hours to 30 minutes** — prompted by the 2025 **AWS US-East-1 outage**.
- Built **reusable Terraform modules** for automated environment provisioning, reducing **setup time by 40%** and cutting cloud costs.
- Led development of **AWS-native distributed services** under an organisation-wide **modernisation programme**, **processing 5M+ financial events/day** using **MSK, ECS Fargate, Lambda, S3, DynamoDB, and Kafka Streams**.
- Owned production debugging and on-call support for business-critical systems, **resolving high-severity incidents**; mentored 4 junior engineers, conducted code reviews, and contributed to scalable architecture and design decisions.
- Built Trade Data Network service to **securely connect and transmit data between JPMorgan and an external party**, using **AWS PrivateLink, VPC Endpoints, IAM, encrypted storage, and a proxy server**. Designed it to **auto-scale with traffic** while preserving **strict message ordering**.
- Increased application **throughput 100x, from 20 to 2,000 messages/sec**, by redesigning **thread orchestration** and eliminating blocking performance-logging bottlenecks and implementing the **correct concurrency configuration**.
- Built **Grafana dashboards** with alerting to reduce manual investigation time, and OpenSearch dashboards to improve **system data visibility**.
- Delivered **30-30-30 regulatory reporting** using SQL queries, enabling real-time monitoring and auditability of financial allocations while **avoiding fees for delayed** transactions.

GeeksForGeeks – Software Engineer – India

Jul 2022 – Oct 2022

- Debugged session-management issues and optimised frontend-backend API communication to improve application reliability.

SKILLS

Languages: Python, Java, C++, Kotlin

Architecture: Microservices, Distributed Systems, Event-Driven Architecture

Backend: Spring Boot, Node.js/Express, Spring Cache, Django

Cloud: AWS (Lambda, ALB, NLB, ECS, MSK, S3, IAM, VPC, EC2, API Gateway, VPC Endpoints, CloudWatch)

Messaging: Kafka, AMPS, SQS, SNS, RabbitMQ

Infrastructure & DevOps: Terraform, CI/CD, Argo CD, Kubernetes, Docker

AI/GenAI: OpenAI API, RAG (Retrieval-Augmented Generation), MCP (Model Context Protocol), Prompt Engineering, Vector Search (OpenSearch), LLM Integration

Testing: Cucumber, Integration Testing, Karate

Frontend: React, TypeScript

Low-Latency Systems: LMAX Disruptor, GemFire

Financial Data: FIX, FIXML, WM Daten, SIX, Taxbox

Databases: MySQL, DynamoDB, PostgreSQL, OpenSearch

CERTIFICATIONS

AWS Certified Cloud Practitioner | HashiCorp Certified: Terraform Associate | Nominee for “Rising Star Award” in JP Gnomes 2025

EDUCATION

Bundelkhand Institute of Engineering and Technology – B.Tech in Information Technology – Jhansi, India

2018 – 2022 | Grade: 8.5/10

PROJECTS

DSA Generator – Personalised DSA Practice Platform

- Built a full-stack platform using **Node.js, Express, React, and the OpenAI API** to generate customised DSA practice sets based on company, topic, and difficulty level.
- Implemented instant practice-link discovery and a print-ready workflow for seamless offline problem-solving.