

PANKHURI GUPTA

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Education

Northeastern University, Boston

Expected Dec 2025

Master of Science – Software Engineering Systems

Technical Skills

Programming Languages: Java (primary), TypeScript/JavaScript, Python, C#, C/C++, SQL

Database Skills: PostgreSQL, MySQL, MongoDB, Redis

Frameworks/Technologies: Spring Boot, Hibernate, Node.js/Express, REST/GraphQL, JPA, React, Next.js, Angular, Tailwind

Tools: Git, Postman, VS Code, IntelliJ, Docker, Kubernetes, Terraform, Jenkins

Cloud and Deployment: AWS (SNS/SQS, Lambda, DynamoDB, CloudWatch, EC2, ELB, Route 53)

Testing & Ops: JUnit, Mockito, GitHub Actions, Kibana/Elasticsearch

Professional Experience

Amazon Web Services, Austin, TX

May 2025 – Aug 2025

Software Development Engineer Intern — AWS Marketplace — (Java, Spring Boot, Lambda)

- **Shipped a real-time Purchase Order Auditor** on AWS (**SNS/SQS, Lambda, DynamoDB**) processing **approx. 1M** invoice events/month; CloudWatch alarms on DLQ size, latency, and error rate **reduced TTD by 80%** and **MTTD by 40%**
- Designed a fault-tolerant data pipeline using **SNS/SQS** to **Lambda** to **DynamoDB** for near-real-time invoice processing
- **Hardened resiliency** with PO validation and silent-failure detection; **manual escalations reduced by 85%** and backlog clear times improved during incidents
- Built a **DLQ reprocessor** with idempotency and exponential backoff, enabling safe replay of failed messages and eliminating duplicate updates

Hexagon India Pvt. Ltd., India

July 2021 – Dec 2023

Software Development Engineer — Geospatial — (Java, Spring Boot, PostgreSQL)

- Built a **geospatial pipeline** (Node/Express + **PostgreSQL/PostGIS**) and Angular maps; **reduced map load time by 50%** and enabled real-time spatial queries via WebSockets
- Delivered GIS feature tracking and regional search (Luciad RIA); **tripled** analyst throughput on investigative workflows
- Optimized feature modules in **Ext JS** and **.NET Core/Entity Framework**; improved SQL Server integration; **reduced query latency by 15%**
- Integrated WebSocket streaming in a Java service to push live geospatial updates with zero page refresh

Tata Consultancy Services, India

Sept 2019 – June 2021

Assistant Software Engineer — TCS iON Digital Campus — (Java, Spring Boot, MySQL)

- Maintained **99.9%** uptime for fee-processing microservices; tuned Java concurrency and PL/SQL to **increase throughput by 50%** and **reduce batch job time by 40%** (1M+ daily transactions)
- Implemented asynchronous pipelines with thread-safe collections, improving concurrency and **reducing execution time by 40%**
- Optimized PL/SQL procedures, packages, and complex joins; **increased transaction throughput by 50%** and supported peaks of 1M+ daily transactions

Academic Projects

Cloud Application for Peak Performance

Sept 2024 – Dec 2024

- Implemented AWS SNS & Lambda for event-driven workflows, enabling seamless email verification via SendGrid
- Hardened traffic management via security groups, safeguarding the infrastructure from unauthorized access
- Automated CI/CD with EC2 Auto Scaling, ELB, and GitHub Actions (tests, AMIs, rolling updates), **reducing downtime by 35%**
- Defined SLOs/SLIs (availability, p95 latency) with CloudWatch dashboards and alarms; exercised failure drills to validate autoscaling and rollback paths

ElderlyCare Solution

Jan 2024 – Apr 2024

- Built a React platform for elderly users to book & track appointments (scales to 1k+ users), integrating an AI assistant (EC Buddy) using the OpenAI API
- Integrated Stripe with Node.js/Express for secure payments; tested 500+ transactions/day with under 300 ms latency; real-time calendar sync with MongoDB
- Developed JWT-based authentication & RBAC in Node.js/Express; **99.9%** rules compliance in simulated workloads
- Implemented Multer-based uploads; average upload time under 200ms for medical records