

# KARTIK PAGEY

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## PROFESSIONAL SUMMARY

Software Engineer with 3+ years building scalable distributed systems using Java, Spring Boot, and AWS. Demonstrated ownership of the complete service lifecycle (design→deployment→on-call) with Strong focus on operational excellence, monitoring, and AI-assisted development for productivity and reliability.

## EDUCATION

### Stony Brook University, USA

Master of Science in Data Science

**Coursework:** Distributed Systems, Cloud Computing, Computer Vision, Data Structures & Algorithms, Database Systems

### Savitribai Phule Pune University, India

Bachelor of Engineering in Electronics and Telecommunications

Aug 2025 - May 2027

Aug 2016 - May 2020

**Coursework:** Operating Systems, Object-Oriented Programming, Computer Networks & Security, Machine Learning

## PROFESSIONAL EXPERIENCE

### PricewaterhouseCoopers

Software Engineer

Oct 2022 – Jul 2025

3× PwC ‘Star’ Awards, ‘Above N Beyond’ Award

- Engineered and scaled distributed microservices using **Java, Spring, and REST APIs**, handling high-volume transactions across global retail clients with a **27%** throughput increase. Optimized system speed through caching strategies.
- Built secure **JSON** based integrations between SAP Commerce and external systems using OAuth2 (client-credentials flow) and JWT access tokens, improving cross-platform authorization reliability and achieving **84%+** successful transaction flow.
- Designed and optimized **CI/CD pipelines** (Git, Jenkins, Cloud Commerce), cutting the deployment effort by **34%** and accelerating release cadence across multi-region environments. System reliability tracked via Kibana and Dynatrace.
- Spearheaded key back-end optimizations by **refactoring service logic**, decreasing average API response time by **16ms** and improving developer productivity by **19%** through modularized service design.

### Cognizant Technology Solutions

Software Engineer

Nov 2020 – Oct 2022

- Engineered high-performance REST APIs and microservices, enabling seamless integration with third-party systems and supporting **reliable backend operations**, which improved overall service throughput by **25%**.
- Improved service reliability and operational excellence by implementing automated **unit and integration test suites (JUnit, Mockito)** and optimizing **database query execution** through indexing and connection-pool tuning, reducing query latency by **20%** in production systems.

## TECHNICAL PROJECTS

### SafeArt - Java, Spring Boot, AWS (S3, DynamoDB, SQS, Step Functions), Docker

- Designed and operated a cloud-native distributed microservice using Java, Spring Boot, and **AWS (SQS, Step Functions, DynamoDB)**, ensuring scalable asynchronous processing with **P95 latency <2s** for high-volume customer workloads.
- Drove operational excellence through automated deployments, observability dashboards (CloudWatch, X-Ray), and resilience patterns such as **idempotent APIs, retries, and DLQ redrive**, reducing MTTR by **60%** and improving production reliability.

### EventBooker-Pro - Java, Spring, JPA, MySQL, REST APIs, System Design

- Architected a scalable movie ticket booking platform using **Spring Boot, Java, MySQL, and JPA/Hibernate**, enabling multi-city support, 3+ seat categories, and 40% faster booking throughput with secure authentication.
- Structured relational data models and **RESTful APIs** to handle **1000+ concurrent bookings**, integrating payment gateway (UPI, Credit Card, Net Banking), coupon validation, and analytics-ready transaction logs.
- Implemented **JPA/Hibernate** for ORM and optimized query execution, improving booking throughput by 40% and ensuring consistency under peak load.

### MovieMatch-Studio - Python, pandas, NumPy, scikit-learn, Streamlit, TMDB API, requests/JSON, pickle

- Built and deployed a content-based movie recommender system using **Python, scikit-learn, pandas, and Streamlit**, serving top-K movie results with **<150 ms inference latency** and scalable cosine-similarity search across **10K+ titles**.
- Integrated the **TMDB API** for real-time metadata and poster retrieval, and containerized the app on **Heroku** with secure environment secrets and **40% faster model loading** using pickled artifacts.

## TECHNICAL SKILLS

**Programming Languages:** Java, Python, C/C++, Go, Rust, TypeScript, JavaScript, R

**Distributed Systems & Backend:** Spring Boot, Spring MVC, REST APIs, Microservices, JPA/Hibernate, Kafka/SQS, SAP Commerce Cloud (SAP Hybris), Solr, MCP

**Cloud & DevOps:** AWS (S3, Lambda, Translate, DynamoDB, CloudWatch), Docker, Git, Jenkins, Kubernetes, Unix, SonarQube, Kibana, Dynatrace, Bitbucket, Agile/SDLC, Jira, Postman

**Databases:** MySQL, PostgreSQL, NoSQL (DynamoDB), XML, JSON

**Data Science & Tools:** Scikit-learn, Pandas, NumPy, OpenCV, GenAI, Hugging Face, LangChain, Power BI, MS Office