

# Aarshika Singh

Senior Software Developer (Associate) — Global Markets IT | London, United Kingdom

Email: aarshikasingh1343@gmail.com | Phone: +44 740 5845 842

LinkedIn: linkedin.com/in/aarshika-singh | Portfolio: aarshikasingh.com

## PROFESSIONAL SUMMARY

Software engineer in Global Markets IT at Nomura with experience in release automation, microservices refactoring, and database change management. Builds reliable tooling and data/ML-flavoured utilities to improve developer productivity and operational insight.

## EXPERIENCE

**Nomura International Plc — Senior Software Developer (Associate)** Oct 2021 – Present | London

- Designed and implemented automation tools to streamline software releases, reducing deployment time and human error.
- Led a PoC migrating monoliths toward microservices; used Apache Pulsar for streaming and Kubernetes + Helm for scalable deployment (Rancher).
- Implemented automated database schema management with Liquibase for versioning and migrations.
- Started an intelligent log analysis system: EKS + Grafana logs with ML clustering to identify patterns and support predictive diagnostics.

**Nomura International Plc — Business Analyst (Intern)** Jun 2022 – Aug 2022 | London

- Supported BA team building internal software for Global Markets.
- Contributed to regulatory reporting, sanity checks, and documentation quality.

## SELECTED PROJECTS

### Trade Day Clustering Using K-Means and Stock Data (May 2025)

Stack: Python, Pandas, scikit-learn, yfinance, Streamlit

- Clusters trading days by price/volume features to surface hidden market-day regimes.
- End-to-end feature engineering and interactive visualization app in Streamlit.

### Movie Review Sentiment Analysis Using TMDB API (Apr 2025)

Stack: Python, Pandas, NLTK, Matplotlib, TMDB API

- Pipeline to fetch reviews and perform real-time sentiment analysis; interactive UI for query by movie name/ID.
- Demonstrates text preprocessing, rule-based classification, and stakeholder-friendly charts.

## SKILLS

- Programming & Data:** Java, C/C++, Python, SQL, JavaScript, MySQL
- Cloud & DevOps:** Kubernetes, Helm, Rancher, Liquibase
- AI & ML:** scikit-learn, TensorFlow; log pattern clustering; data wrangling & EDA
- Collaboration:** Jira, Confluence, Miro
- Languages:** English (Native), Hindi (Native), German (Intermediate)

## EDUCATION

- B.Sc. Computer Science — Jacobs University Bremen (2019–2022)
- Minor: Global Economics Management | GPA: 1.83 (German scale)
- Lürssen Werft GmbH Scholarship (€15,000/year)
- Thesis: Assessing the performance of Quantum Kernel Machine Learning