

Rahat Ali

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EDUCATION

Queen Mary University of London

BSc (Hons) Computer Science with Industrial Experience

Graduation Date: **Jul. 2026**

London, UK

- Relevant Modules: Software Engineering, Algorithms and Data Structures, Object Oriented Programming

EXPERIENCE

Software Engineering Intern

Jun. 2024 – Present

VISA Inc. (Cybersource)

Belfast, UK

- Improved API response time by 60% and reduced database reads per request through a HashMap-based caching solution, enhancing scalability and system efficiency
- Worked in a Scrum team to develop an enterprise-grade checkout system, leveraging Agile tools such as Jira
- Enhanced software quality and reliability by writing new unit and end-to-end tests to increase code coverage and refactoring of existing tests, creating a more stable development pipeline
- Developed Java-based settlement applications, implementing critical data format changes and enhancing validation algorithms for financial data interchange between merchants and issuing banks
- Performed manual and automated testing across multiple payment gateways, creating simulated transactions to verify system functionality and proper handling of transaction rejections

PROJECTS

Order Book | Java

Github

- Engineered a high-performance L2 Order Book in Java, leveraging TreeMap's to achieve efficient complexity for critical operations like order insertion and price-level tracking
- Generated realistic price movements using Geometric Brownian Motion, simulating market conditions
- Logged transaction details in real-time, recording order matches and trade outcomes for comprehensive tracking
- Enhanced system performance by implementing periodic garbage collection to handle inactive orders

UDP Communication Simulator | C

Github

- Designed a communication simulator, following RFC 768 standards to model low-latency network communication
- Implemented server-client communication with checksum validation to ensure data integrity

Price Comparison Website | Python, Django, HTML/CSS, MySQL, Scrapy

Github

- Built a full-stack web application using Python and Django, following waterfall development principles
- Scraped data using Scrapy and retrieved JSON data via API calls, simulating real-time data ingestion
- Leveraged a DBMS to store, cache and manipulate data in a MySQL database, following a relational schema

EXTRACURRICULAR

Financial Literacy Project

Oct. 2023 – Mar. 2024

Queen Mary University of London

London, UK

- Designed interactive tools to simplify financial concepts, demonstrating technical skills and effective communication skills
- Led a team of four to translate complex financial principles into user-friendly learning experiences

Microsoft Hackathon

Nov. 2023

Microsoft, Carradale/Futures, QMUL Computer Science Society

London, UK

- Collaborated in a team of five to develop a Patient Record system using PowerApps, focusing on ease of use
- Showcased creativity and teamwork by presenting a functional prototype to judges, receiving positive feedback

TECHNICAL SKILLS

Languages: Java, SQL, Python, Javascript, Typescript, HTML/CSS

Developer Tools: Git, Kubernetes, Docker, Linux, Jira

Frameworks: ReactJS, ExpressJS, Spring Boot, Django

CERTIFICATIONS

Microsoft Certified: Azure AI Fundamentals (AI-900)

May 2025