

# Rayan Crasta - Software Engineer

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**Email:** [rayancrasta95@gmail.com](mailto:rayancrasta95@gmail.com) | **Contact:** +44 7767591427

**Location:** Leeds, UK | [LinkedIn](#) | <http://rayancrasta.com> | [GitHub](#)

## Summary

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Dynamic software engineer with a strong foundation in system design, software development, and database management. Experienced in building scalable applications using modern technologies, with a keen focus on quality and performance. Eager to contribute to a Payment Orchestration Platform by leveraging technical expertise, collaborating in team environments, and solving complex problems. Seeking to further grow professionally and make a meaningful impact in the tech industry.

## Work Experience

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### Mint People - Front of House Staff & Kitchen Porter (Part Time)

May 2024 – Aug 2024, UK

- Provided exemplary customer service in restaurants and clubs, efficiently handling reservations, seating, and resolving inquiries.
- Supported kitchen operations through dishwashing, food prep, and maintaining cleanliness, demonstrating strong teamwork and attention to detail.

### Hap Solutions - Festival and Bar Staff (Part Time)

June 2024 – Aug 2024, UK

- Delivered excellent customer service at festivals and events, effectively managing bar operations and ensuring a pleasant experience for attendees.

### Royal Mail – Warehouse Operative (Part Time)

Nov 2023 – Dec 2023, Northampton, UK

- Loaded/unloaded shipments and sorted items efficiently to optimize workflow, showcasing strong organizational skills and efficiency.

### Tata Consultancy Services – Assistant Systems Engineer (Full Time)

June 2021 – Aug 2023, Mumbai, India

- Developed bash scripts to automate the hardening process of over 100+ Linux servers for compliance based on CIS benchmarks, saving 900+ hours of manual compliance hours. Received the “Best Team” award for this initiative.
- Conducted security analysis on Angular and Spring Boot codebases using Checkmarx and Fortify WebInspect, identifying and mitigating critical vulnerabilities, enhancing overall application security.
- Integrated third-party antimalware and data tokenization solutions into the existing architecture, contributing to the security and robustness of the platform.
- Conducted manual web application security testing using OWASP ZAP and Burpsuite, identifying and addressing critical vulnerabilities, thus enhancing application security.

### Qustac Technologies Pvt. Ltd - Android Development Intern (Part Time)

Mar 2020 – Jan 2021, Mumbai, India

- Developed an Android application using Android Studio and Java, integrating TensorFlow Lite for real-time classification of explicit and non-explicit images, demonstrating strong analytical and problem-solving skills.
- Streamlined machine learning model integration to facilitate automatic actions upon detecting explicit content within image files.

## Projects

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### TweetOps: Twitter-like Tweet Ingestion and Search Backend [Blog](#) | [GitHub](#)

- Developed a Twitter-like backend prototype using Go, FastAPI, Kafka, PostgreSQL, and Elasticsearch, focusing on scalable architecture and performance.
- Managed a dataset of 500K tweets, categorized by language, and ingested into Elasticsearch via Kafka.
- Utilized Elasticsearch for real-time tweet search and immediate availability of ingested tweets.
- Created user and tweet search functionalities with PostgreSQL and Elasticsearch, including pagination.
- Developed a FastAPI service for flagging profane tweets based on a model, integrated into the ingestion process for safe search.

### MyShowSeat: Booking Service Backend [Blog](#) | [GitHub](#)

- Developed a booking service backend prototype using Go, Redis, and PostgreSQL, focusing on scalability and user experience.
- Implemented booking logic for seat checks, claiming, payment verification, and finalization, ensuring a seamless user experience during high traffic.
- Utilized Go's concurrency for asynchronous processing, maintaining data integrity with PostgreSQL transactional operations and row-level locking.
- Enhanced performance with Redis caching for seat availability, reducing database calls and improving scalability. Incorporated JWT token-based authentication for secure service access.

#### Debate Management System (Dissertation Project)

- Designed a platform for managing structured debates in academic settings, incorporating gamification, quizzes, and real-time feedback.
- Built using React.js for responsive UIs and FastAPI for backend logic, with PostgreSQL for authentication and MongoDB for debate storage.
- Utilized Redis for real-time tracking and WebSockets for live updates during debate sessions.
- Provided detailed post-debate analytics to help educators enhance teaching strategies.

## Education

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### University of Leicester

*MSc Cloud Computing (Sept 2023 - 2024)*

### Mumbai University

*Bachelor of Engineering, Information Technology (2021), 9.42 CGPA*

## Skills

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- **Languages:** Go, Python, FastAPI, Django, Bash, JavaScript, Java, ReactJS
- **Databases:** PostgreSQL, MongoDB, Redis, DynamoDB
- **Infra:** Linux, Docker, AWS, EKS
- **Tools:** Kafka, Elasticsearch, Prometheus, Grafana
- **Security:** Burpsuite, Checkmarx, WebInspect, OWASP ZAP
- **Soft Skills:** Strong collaboration, problem-solving, adaptability, attention to detail, effective communication, self-motivated