# Rayan Crasta - Software Engineer with Machine Learning Focus

**Email**: rayancrasta95@gmail.com | **Contact**: +44 7767591427
**Location**: Leeds, UK | LinkedIn | http://rayancrasta.com | GitHub

**Visa**: Graduate Visa till December 2026

## Summary

Dedicated software engineer with a strong focus on machine learning and artificial intelligence applications. Proficient in system design, software development, and database management, with a demonstrated ability to deliver high-performance applications. Eager to leverage technical skills and analytical mindset to contribute to innovative projects within collaborative team environments. Seeking to advance my career in roles that challenge the status quo and foster growth in the tech industry.

## Work Experience

**Primark** - Retail Assistant
*Nov 2024 – Present, UK*

- Delivered exceptional customer service by assisting shoppers with inquiries, product selections, and transactions in a fast-paced retail environment.
- Efficiently handled point-of-sale transactions and resolved customer concerns to enhance the shopping experience.

**Mint People** - Front of House Staff & Kitchen Porter (Part Time)
*May 2024 – Aug 2024, UK*

- Provided customer service in restaurants and clubs, handling reservations, seating, and resolving inquiries.
- Supported kitchen operations through dishwashing, food prep, and maintaining cleanliness.

**Hap Solutions** - Festival and Bar Staff (Part Time)
*June 2024 – Aug 2024, UK*

- Delivered excellent customer service at festivals and events, managed bar operations.

**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 time. Won the "Best Team" award for the initiative.
- Conducted security analysis on Angular and Spring Boot codebases using Checkmarx and Fortify WebInspect, identifying and mitigating critical vulnerabilities.
- Integrated third-party antimalware and data tokenization solutions into existing architecture.
- Conducted manual web application security testing using OWASP ZAP and Burp Suite, enhancing application security by identifying and addressing vulnerabilities.
- Collaborated on projects involving machine learning applications, contributing to feature development and performance evaluation.

**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 on Android devices.
- Streamlined machine learning model integration to facilitate automatic actions upon detecting

explicit content within image files.

## Projects

**TweetOps: Twitter-like Tweet Ingestion and Search Backend** Blog | GitHub

- Developed a Twitter-like backend prototype using Go, FastAPI, Kafka, PostgreSQL, and Elasticsearch.
- 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.
- Implemented booking logic for seat checks, claiming, payment verification, and finalization to ensure 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

**University of Leicester**
*MSc Cloud Computing (Sept 2023 - 2024)*

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

## Skills

- **Languages**: Python, Go, FastAPI, Bash, JavaScript, Java, C, C++
- **Databases**: PostgreSQL, MongoDB, Redis
- **Infra**: Linux, Docker, Kubernetes
- **Tools**: Kafka, Elasticsearch, Prometheus, Grafana, JIRA
- **Machine Learning**: TensorFlow Lite, model integration and application development
- **Security**: Burpsuite, Checkmarx, WebInspect, OWASP ZAP
- **Methodologies**: Agile software development, continuous integration, test-driven development