# **Rayan Crasta - Software Engineer**

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## **Summary**

Dynamic software engineer with strong technical skills in system design, software development, and database management. Proficient in Python, Java, and open-source technologies, with a keen interest in data engineering and stream processing. Passionate about building high-performance applications and optimizing data systems for improved efficiency. Seeking to leverage expertise in a collaborative team environment to contribute to innovative solutions in the financial technology space.

## **Work 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.

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

Nov 2023 - Dec 2023, Northampton, UK

• Loaded/unloaded shipments and sorted items efficiently to optimize workflow.

**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 efforts. Won "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.
- Integrated third-party antimalware and data tokenization solutions into the existing architecture.
- 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 on Android devices.
- Integrated a streamlined machine learning model 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 for efficient search and retrieval.
- Implemented real-time tweet search capabilities utilizing Elasticsearch, enhancing the user experience.
- 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, ensuring a seamless user experience.
- Implemented booking logic for seat checks, claiming, payment verification, and finalization during high traffic.
- 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, guizzes, 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, Java, Go, FastAPI, Django, Bash, JavaScript, ReactJS
- Databases: PostgreSQL, MongoDB, Redis
- Infra: Linux, Docker, Kubernetes
- Tools: Kafka, Elasticsearch, Prometheus, Grafana, Jenkins
- Security: Burpsuite, Checkmarx, WebInspect, OWASP ZAP
- **Soft Skills**: Strong problem-solving, effective communication, collaborative teamwork, adaptability, self-organization, attention to detail