# Rayan Crasta - Software Development Engineer in Test

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### **Summary**

Detail-oriented and driven Software Development Engineer in Test with a strong foundation in software development, automated testing, and security analysis. Proficient in developing and executing test automation frameworks, API tests, and performance tests. Eager to contribute to high-profile projects and enhance software quality through effective communication and collaboration in diverse team settings. Seeking to leverage technical skills and knowledge in a challenging role within a dynamic team focused on sustainability and innovation.

## **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 hours. Won "Best Team" award for the same.
- 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.
- Actively contributed to the development and execution of automated test cases, enhancing testing efficiency and software quality.

**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.
- 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, 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, 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, Go, FastAPI, Django, Bash, JavaScript, Java, ReactJS
- Databases: PostgreSQL, MongoDB, Redis
- Infra: Linux, Docker, Kubernetes, Openshift
- Tools: Azure DevOps, Kafka, Elasticsearch, Prometheus, Grafana, JIRA
- Security: Burpsuite, Checkmarx, WebInspect, OWASP ZAP
- **Soft Skills**: Detail-oriented, organized, strong analytical skills, effective communication, teamwork, ability to manage multiple priorities, mentoring and supporting junior analysts.