

Rayan Crasta - Software Engineer

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Summary

Results-oriented software engineer with a strong foundation in system design, software development, and database management. Proficient in identifying and resolving complex technical challenges while developing innovative software solutions. Committed to contributing to high-performance applications within collaborative environments. Seeking to leverage skills in software architecture and design in a challenging role to drive advancements in the tech industry.

Work Experience

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

May 2024 – Aug 2024, UK

- Delivered exceptional customer service in restaurants and clubs, effectively handling reservations, seating, and inquiries.
- Assisted kitchen operations through food prep and maintaining cleanliness.

Hap Solutions - Festival and Bar Staff (Part Time)

June 2024 – Aug 2024, UK

- Provided excellent customer service at festivals and events, while efficiently managing bar operations.

Royal Mail – Warehouse Operative (Part Time)

Nov 2023 – Dec 2023, Northampton, UK

- Loaded and unloaded shipments, sorting items efficiently to optimize workflow and maintain operations.

Tata Consultancy Services – Assistant Systems Engineer (Full Time)

June 2021 – Aug 2023, Mumbai, India

- Developed bash scripts to automate compliance hardening processes for over 100+ Linux servers based on CIS benchmarks, saving 900+ hours of manual compliance effort; recognized with the “Best Team” award.
- 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 software architecture.
- Conducted manual web application security testing using OWASP ZAP and Burpsuite, significantly 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, incorporating 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](#)

- Architected a Twitter-like backend prototype utilizing Go, FastAPI, Kafka, PostgreSQL, and Elasticsearch.
- Managed a dataset of 500K tweets, categorized by language, and ingested into Elasticsearch via Kafka.
- Enabled real-time tweet search and immediate availability of ingested tweets through Elasticsearch.
- Developed user and tweet search functionalities, including pagination, with PostgreSQL and Elasticsearch.
- Implemented a FastAPI service for flagging profane tweets based on a model, enhancing safe search capabilities.

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

- Created a booking service backend prototype using Go, Redis, and PostgreSQL with a focus on performance and scalability.
- Developed robust booking logic for seat checks, claiming, payment verification, and finalization during high traffic.
- Leveraged Go's concurrency for asynchronous processing, ensuring data integrity with PostgreSQL.
- Enhanced performance with Redis caching for seat availability, reducing database calls and improving scalability.
- Integrated JWT token-based authentication for secure service access.

Debate Management System (Dissertation Project)

- Designed an innovative platform for managing structured debates in academic environments, enhancing user engagement through gamification and real-time feedback.
- Built using React.js for responsive user interfaces and FastAPI for backend logic, supported by PostgreSQL and MongoDB for data storage.
- Utilized Redis for real-time tracking and WebSockets for live updates during debate sessions.
- Provided detailed post-debate analytics to assist educators in enhancing 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:** Go, Python, FastAPI, Django, Bash, JavaScript, Java, C++
- **Databases:** PostgreSQL, MongoDB, Redis
- **Infra:** Linux, Docker, Kubernetes, Openshift
- **Tools:** Kafka, Elasticsearch, Prometheus, Grafana, JIRA
- **Security:** Burpsuite, Checkmarx, WebInspect, OWASP ZAP
- **Soft Skills:** Problem-solving, Collaboration, Communication, Adaptability, Attention to Detail