

Rayan Crasta - Software Engineer

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Summary

Motivated software engineer with a strong foundation in system design, software development, and database management. Demonstrates keen problem-solving abilities and effective communication skills to collaborate successfully in team environments. Eager to contribute to the development of efficient software solutions, enhance operational processes, and support the implementation of ERP systems. Seeking to leverage technical expertise to drive improvements in a dynamic industrial setting.

Work Experience

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

May 2024 – Aug 2024, UK

- Provided exceptional customer service in restaurants and clubs, managing reservations, seating, and addressing inquiries.
- Assisted kitchen operations through dishwashing, food preparation, and maintaining cleanliness.

Hap Solutions - Festival and Bar Staff (Part Time)

June 2024 – Aug 2024, UK

- Delivered outstanding customer service at festivals and events, efficiently managing bar operations.

Royal Mail – Warehouse Operative (Part Time)

Nov 2023 – Dec 2023, Northampton, UK

- Loaded and unloaded shipments while sorting items to optimize workflow and enhance productivity.

Tata Consultancy Services – Assistant Systems Engineer (Full Time)

June 2021 – Aug 2023, Mumbai, India

- Developed automation scripts in Bash for the hardening process of over 100 Linux servers, ensuring compliance with CIS benchmarks and saving over 900 hours of manual work. Awarded “Best Team” for this initiative.
- Conducted security analysis on Angular and Spring Boot codebases with Checkmarx and Fortify WebInspect, identifying and addressing critical vulnerabilities.
- Integrated third-party antimalware and data tokenization solutions into existing architectures to enhance security measures.
- Performed manual web application security testing using OWASP ZAP and Burpsuite, improving application security by mitigating identified vulnerabilities.

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

Mar 2020 – Jan 2021, Mumbai, India

- Developed an Android application utilizing Android Studio and Java, integrating TensorFlow Lite for real-time classification of explicit and non-explicit images.
- Streamlined a machine learning model for automatic actions in response to detected explicit content within image files.

Projects

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

- Engineered a backend prototype resembling Twitter using Go, FastAPI, Kafka, PostgreSQL, and Elasticsearch.
- Managed a dataset of 500K tweets, categorized by language, for ingestion into Elasticsearch via Kafka.
- Implemented Elasticsearch for real-time tweet searches and immediate availability of ingested tweets.
- Developed user and tweet search functionalities with PostgreSQL and Elasticsearch, featuring pagination capabilities.
- Created a FastAPI service for flagging profane tweets, integrating it into the ingestion process for safe searches.

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

- Constructed a booking service backend prototype utilizing Go, Redis, and PostgreSQL.
- Implemented comprehensive booking logic for seat checks, claiming, payment verification, and finalization, ensuring a seamless user experience during peak times.
- Leveraged Go's concurrency for asynchronous processing, maintaining data integrity through PostgreSQL's transactional operations.
- Enhanced performance by implementing Redis caching for seat availability, reducing database calls and improving scalability; incorporated JWT token-based authentication for secure access.

Debate Management System (Dissertation Project)

- Designed an interactive platform for managing structured debates in academic settings, incorporating gamification, quizzes, and real-time feedback.
- Developed using React.js for responsive user interfaces 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 assist educators in improving 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, JavaScript, Go, FastAPI, Django, Bash, Java, ReactJS
- **Databases:** PostgreSQL, MongoDB, Redis
- **Infra:** Linux, Docker, Kubernetes, Openshift
- **Tools:** Kafka, Elasticsearch, Prometheus, Grafana, JIRA
- **Security:** Burpsuite, Checkmarx, WebInspect, OWASP ZAP
- **Soft Skills:** Strong communication, collaboration, analytical thinking, problem-solving, adaptability