

Rayan Crasta - Software Engineer

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Summary

Dynamic software engineer with hands-on experience in system design, software development, and database management. Skilled in building high-performance applications using modern technologies, with a strong emphasis on user experience and product optimization. Eager to contribute to impactful projects while continuing to grow professionally and make a meaningful impact in the tech industry.

Work Experience

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

May 2024 – Aug 2024, UK

- Provided customer service in restaurants and clubs, managing reservations, seating, and resolving inquiries, showcasing strong communication and teamwork skills.
- Supported kitchen operations through dishwashing, food prep, and maintaining cleanliness, demonstrating reliability and attention to detail.

Hap Solutions - Festival and Bar Staff (Part Time)

June 2024 – Aug 2024, UK

- Delivered excellent customer service at festivals and events, effectively managing bar operations and working collaboratively with team members.

Royal Mail – Warehouse Operative (Part Time)

Nov 2023 – Dec 2023, Northampton, UK

- Loaded/unloaded shipments and sorted items efficiently to optimize workflow, demonstrating strong organizational skills and persistence.

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. Received the “Best Team” award for this initiative, highlighting my ability to work effectively in a team environment.
- Conducted security analysis on Angular and Spring Boot codebases using Checkmarx and Fortify WebInspect, identifying and mitigating critical vulnerabilities, ensuring robust security measures.
- Integrated third-party antimalware and data tokenization solutions into the existing architecture, enhancing system security.
- Conducted manual web application security testing using OWASP ZAP and Burpsuite, identifying and addressing critical vulnerabilities, thus improving 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, showing innovation and technical proficiency.
- Integrated a streamlined machine learning model to facilitate automatic actions upon detecting

explicit content within image files, enhancing user experience.

Projects

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

- Developed a Twitter-like backend prototype using Go, FastAPI, Kafka, PostgreSQL, and Elasticsearch, showcasing strong technical skills and problem-solving ability.
- 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, enhancing user experience.
- 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, showing a strong understanding of multi-server architectures.
- 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, 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:** Go, Python, FastAPI, Django, Bash, JavaScript, Java, ReactJS, TypeScript
- **Databases:** PostgreSQL, MongoDB, Redis
- **Infra:** Linux, Docker, CI/CD pipelines, AWS ECS
- **Tools:** Kafka, Elasticsearch, Prometheus, Grafana
- **Security:** Burpsuite, Checkmarx, WebInspect, OWASP ZAP
- **Soft Skills:** Curiosity, Confidence, Persistence, Teamwork, Problem-solving, Communication