Rayan Crasta - Software Engineer

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Summary

Enthusiastic software engineer with proven experience in software development and system design, proficient in C++ and Python. Eager to leverage technical skills and collaborative mindset to deliver innovative solutions in dynamic environments. Passionate about continuous learning and growth in the technology sector, seeking to contribute effectively to a high-performing team.

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, efficiently managing reservations, seating, and addressing inquiries.
- Supported kitchen operations through dishwashing, food preparation, and maintaining cleanliness.

Hap Solutions - Festival and Bar Staff (Part Time)
June 2024 – Aug 2024, UK

- Delivered excellent customer service at festivals and events, successfully managing bar operations.

Royal Mail – Warehouse Operative (Part Time)
Nov 2023 – Dec 2023, Northampton, UK

- Loaded/unloaded shipments and sorted items efficiently to streamline workflow and enhance operational efficiency.

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 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 enable 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, 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**: C++, Python, Go, FastAPI, Django, Bash, JavaScript, Java, ReactJS
- **Databases**: PostgreSQL, MongoDB, Redis
- **Infra**: Linux, Docker, Kubernetes, Openshift
- **Tools**: Git, Kafka, Elasticsearch, Prometheus, Grafana, JIRA
- **Security**: Burpsuite, Checkmarx, WebInspect, OWASP ZAP

Soft Skills

- Strong problem-solving abilities
- Excellent communication and teamwork skills
- Adaptability to changing environments
- Detail-oriented and highly organized