Rayan Crasta - Data Engineering Apprentice

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Summary

Motivated software engineering graduate eager to contribute to innovative spacecraft programs through software development and data management. Proficient in developing technical solutions and passionate about coding, with a strong desire to grow within a collaborative team environment. Committed to delivering quality results and driving creative solutions to complex problems.

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.

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, 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**: Python, Java, Go, Bash, JavaScript, ReactJS
- **Databases**: PostgreSQL, MongoDB, Redis
- **Infra**: Linux, Docker, Kubernetes
- **Tools**: Kafka, Elasticsearch, JIRA
- **Soft Skills**: Communication, Problem-solving, Teamwork, Adaptability, Attention to Detail
- **Security**: Burpsuite, Checkmarx, WebInspect, OWASP ZAP