Rayan Crasta - Python Developer

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Summary

Dynamic and results-driven Python Developer with a proven track record in software development, backend technologies, and robust database design. Highly passionate about enhancing code quality and spearheading innovation in collaborative environments. Eager to contribute technical prowess to projects aimed at optimizing city systems and sustainability. Seeking to make a significant impact in a fast-paced startup atmosphere where creativity and technical skills align to drive transformative solutions.

Work Experience

Tata Consultancy Services – Assistant Systems Engineer (Full Time)
June 2021 – Aug 2023, Mumbai, India

- Engineered bash scripts that revolutionized the hardening process for over 100 Linux servers, ensuring compliance with CIS benchmarks and saving over 900 hours of manual effort. Recognized with the "Best Team" award for exceptional contributions.
- Conducted rigorous security analysis on Angular and Spring Boot codebases utilizing Checkmarx and Fortify WebInspect, identifying and mitigating critical vulnerabilities to fortify application security.
- Seamlessly integrated advanced third-party antimalware and data tokenization solutions into the existing architecture, enhancing system integrity and user trust.
- Executed manual web application security testing with OWASP ZAP and Burpsuite, skillfully identifying and addressing critical vulnerabilities, thereby significantly enhancing overall application security.
- Championed agile methodologies within the team, actively participating in sprints and retrospectives to elevate team performance and accelerate project delivery.

Qustac Technologies Pvt. Ltd - Android Development Intern (Part Time)
Mar 2020 – Jan 2021, Mumbai, India

- Innovatively developed an Android application using Android Studio and Java, incorporating TensorFlow Lite for real-time classification of explicit and non-explicit images on mobile platforms.
- Pioneered the integration of a cutting-edge machine learning model to automate actions upon detecting explicit content within images, enhancing user experience and safety.

Projects

TweetOps: Twitter-like Tweet Ingestion and Search Backend Blog | GitHub

- Architected a Twitter-like backend prototype leveraging Go, FastAPI, Kafka, PostgreSQL, and Elasticsearch, demonstrating expertise in complex backend platform development.
- Skillfully managed a dataset of 500K tweets, categorized by language, and ingested into Elasticsearch via Kafka for efficient data handling.
- Harnessed the power of Elasticsearch for real-time tweet search, ensuring immediate availability of ingested tweets, thus enhancing user engagement.
- Developed robust user and tweet search functionalities with PostgreSQL and Elasticsearch,

including pagination for improved user navigation.
- Devised a FastAPI service for flagging profane tweets based on an advanced model, integrated seamlessly into the ingestion process for safe search.

MyShowSeat: Booking Service Backend Blog | GitHub

- Orchestrated the development of a booking service backend prototype utilizing Go, Redis, and PostgreSQL, delivering a high-performing solution for ticketing.
- Implemented sophisticated booking logic for seat checks, claiming, payment verification, and finalization, ensuring a seamless user experience even during peak traffic.
- Leveraged Go's concurrency for asynchronous processing, maintaining data integrity with PostgreSQL's transactional operations and row-level locking.
- Amplified performance through Redis caching for seat availability, drastically reducing database calls and enhancing scalability while incorporating JWT token-based authentication for secure service access.

Debate Management System (Dissertation Project)

- Conceived and designed an innovative platform for managing structured debates in academic settings, featuring gamification, quizzes, and real-time feedback mechanisms.
- Built using React.js for responsive UIs and FastAPI for backend logic, with PostgreSQL for authentication and MongoDB for debate storage, showcasing versatility and technical prowess.
- Utilized Redis for real-time tracking and WebSockets for live updates during debate sessions, providing a modern and interactive user experience.
- Delivered comprehensive post-debate analytics to empower educators in refining 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, Go, FastAPI, Django, Bash, JavaScript, 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**: Proactive Problem Solver, Analytical Thinker, Collaborative Team Player, Agile Methodologies Advocate, Effective Communicator