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# Rayan Crasta

**Python Developer**

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Location: Leeds, UK
LinkedIn | Website | GitHub

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Passionate Python Developer with a strong foundation in software development, database design, and system optimization. Eager to leverage technical skills to enhance code quality and drive innovation in collaborative, agile environments. Seeking to contribute to a dynamic team focused on developing data-tools and software solutions in the energy and sustainability sectors.

## WORK EXPERIENCE

### 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 efforts.
- 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.
- Collaborated in agile sprints and retrospectives, contributing to project planning and prioritization efforts.

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

**March 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.
- Enhanced the user interface (UI) of the application to optimize its user experience and accessibility.

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

**May 2024 – August 2024**

*United Kingdom*

- 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 – August 2024**

*United Kingdom*

- Provided excellent customer service at festivals and events.
- Managed bar operations, including serving drinks and handling transactions.

## Royal Mail – Warehouse Operative (Part Time)

**Nov 2023 – Dec 2023**

*Northampton, United Kingdom*

- Efficiently loaded and unloaded incoming and outgoing shipments, ensuring accuracy and timeliness in accordance with company procedures.
- Proficiently sorted items based on delivery locations, optimizing workflow and minimizing errors.

# 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.

## Realtime Collaborative Whiteboard | Blog

- Designed a collaborative whiteboard application using Node.js where I implemented MongoDB for scalable, reliable whiteboard data storage and Redis for real-time synchronization.
- Leveraged WebSocket and Redis for synchronized real-time updates among users.
- Ensured data persistence and consistency with MongoDB replica sets.
- Monitored server performance using Prometheus and Grafana.

# EDUCATION

## University of Leicester

**MSc Cloud Computing**

*Sept 2023 - 2024*

## Mumbai University

**Bachelor of Engineering, Information Technology**
*June 2021, 9.42 CGPA*

## SKILLS

- **Languages**: Python, Go, JavaScript, FastAPI, Django, Bash, Java, ReactJS
- **Databases**: PostgreSQL, MongoDB, Redis, PostGIS
- **Infra**: Linux, Docker
- **Other**: Kafka, Elasticsearch, Prometheus, Grafana
- **Tools**: Postman, Burpsuite, Checkmarx, WebInspect, OWASP ZAP
- **Soft Skills**: Problem-solving, Analytical thinking, Creativity, Team Collaboration, Agile Practices

## COURSES AND CERTIFICATION

- Working with Microservices in Go (Udemy)
- Working with Concurrency in Go (Udemy)
- CompTIA Security+
- DevOps Ansible (Udemy)
- SOC Analyst 2 from RangeForce
- SOC Analyst 1 from RangeForce
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