Nikhil Salvi

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PROFESSIONAL SUMMARY

Software Developer with Masters in Data Analytics having experience in building Python applications for healthcare clients. Proficient with React, Python, Git and AWS. Currently conducting code reviews at Code Institute, Dublin, ensuring clean code, security and performance having attention to details.

TECHNICAL SKILLS

Languages: Python, Java, JavaScript.
APIs and tools: REST, Postman.
Frameworks: Django, FastAPI, React.
SQL: MySQL, PostgreSQL.

CI/CD and DevOps: Git, Docker, Github actions.
AWS: EC2, Lambda, DynamoDB.
Observability: Prometheus, Cloud-watch.

PROFESSIONAL EXPERIENCE

Software Development Assessor (Django, Python, Github)   Jan 2023 – Present (2 years)
Code Institute, Dublin.
- Reviewed and assessed student projects built using Python, CLI, and Django frameworks to ensure adherence to coding standards and best practices.
- Evaluated backend logic, database integration, and application flow for functionality, efficiency, and maintainability.
- Conducted code quality audits focusing on readability, modularity, and adherence to PEP8 guidelines.
- Assessed Git version control practices, including commit frequency, meaningful messages, and proper branching workflows.
- Verified implementation of security practices, such as input validation, safe database queries, and protection against common web vulnerabilities (e.g., CSRF, SQL injection).
- Provided constructive feedback and improvement recommendations to help developers strengthen technical and professional coding habits.
- Reviewed and validated project documentation, ensuring clarity, completeness, and accurate representation of application functionality.
- Supported learners in understanding industry-level development workflows and deployment best practices.

Software Developer (Python, FastAPI, React)   Mar 2021 – Jan 2022 (1 year)
Intellection Pvt. Ltd., India
- Designed a scalable automation engine using FastAPI to streamline the authorisation process for a healthcare insurance provider to speed up insurance approval workflows.
- Developed responsive and high-performance UI components using ReactJS, Hooks, and functional components.
- Integrated frontend views with backend APIs using Axios, ensuring seamless data flow and error handling.
- Designed and developed a Flask-based automation tool to streamline the data transformation process for raw chatbot data, improving reporting efficiency.
- Built data processing pipelines to clean, structure, and export data for business analytics and reporting.
- Integrated SendGrid API to automate email delivery of structured reports, enabling timely insights for stakeholders.
- Improved workflow efficiency by reducing manual data handling and ensuring consistent data accuracy.
- Collaborated with cross-functional teams to enhance data visibility and decision-making through automated reporting solutions.

PORTFOLIO PROJECTS

RAG AI Assistant for EU GDPR using ReactJS, LLM, FastAPI and Docker GitHub   2025

- Developed an LLM-powered AI assistant using Hugging Face, FastAPI, and OpenAI APIs to deliver domain-specific responses on EU GDPR compliance.
- Implemented a data ingestion pipeline to scrape, embed, and store GDPR text data in Pinecone vector database for efficient semantic retrieval.
- Designed a query-handling API that fetched the top 3 relevant embeddings and computed a confidence score using log probabilities to ensure response reliability.
- Built an interactive frontend interface and Dockerized the complete application for scalable deployment and seamless integration.

Content Management system using Django, micro services and Docker GitHub   2025

- Built a micro-service based CMS architecture with React frontend and Django REST Framework backend (Identity Service), enabling independent development, testing, and API components.
- Implemented JWT-based authentication (with OTP verification) and protected API endpoints via Django + DRF to ensure secure user registration, login, and profile management.
- Containerised the whole system using Docker Compose, including a PostgreSQL database microservice, for easier setup, scaling, and environment separation.
- Defined RESTful API endpoints for user profile, friendships (send/request/respond), and user discovery; ensured cross-service security via CORS, JWT, and standardised configuration for dev/prod environments.

EDUCATION

Master's in Data Analytics
2023
National College of Ireland, Dublin

Machine Learning Predictive analysis on Flight delay
- Performed critical analysis of flight cancellations and built a predictive model for flight delays using automated machine learning (AutoML) with PyCaret.
- Focused on U.S. domestic flight data from 2015, sourced via Kaggle (originally from the U.S. Department of Transportation).
- Aimed to identify key delay factors and evaluate machine learning algorithms for accurate flight delay predictions.

Predictive analysis on US traffic accidents   2022
- Processed and analysed over 2.9 million US traffic accident records (2016–2021) using Python and Power BI, identifying key risk factors such as visibility, weather conditions, and infrastructure layout.
- Developed and evaluated ML models (Random Forest, XGBoost, MLP) to predict accident severity and location risk, achieving high model interpretability using SHAP for feature importance analysis.
- Built interactive dashboards and visual reports highlighting accident trends, hotspots, and year-over-year severity patterns to inform policy-making and infrastructure planning.

ACHIEVEMENTS

- Achieved 22000 impressions on LinkedIn tech content of automated ETL pipeline using AWS services.
- Engaged in competitive programming (100+ Leetcode questions) and open source contribution.