Shraddha Surwade

Software Developer (AIML)

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Python backend developer around 3 years of experience in Health Insurance Domain of building and maintaining scalable server- side applications. Proficient in data handling, API development, and backend logic implementation using Python frameworks. Demonstrated expertise in integrating machine learning components into backend services and deploying optimized solutions. Proven track record of delivering high-performance backend systems within a reputed organization.

EDUCATION

B.TECH | DBATUUNIVERSIY

SKILLS

- Python(Advance)
- Django
- Rest API, Fast API , GraphQL ,
- JWT Authentication
- MySQL, MSSQL
- React/NextJS(Basic)
- Celery, Redis
- Machine Learning
- NLP
- DeepLearning(Basic)

STRENGTHS

- Proficient in Python backend development using Django.
- Experienced in building REST APIs
- Strong database skills with MySQL and MSSQL
- Familiar with integrating ML models into backend systems.
- Skilled in performance optimization and clean code practices
- Effective team player with Agile and Git experience

WORK EXPERIENCE

MdIndia Health Insurance TPA Pvt.Ltd, PUNE

Sr .Executive – Software Developer

- Working as a Full Stack Developer with a focus on backend development using Python and Django.
- Developed and maintained scalable web applications, handling both server-side logic and client-side rendering.
- Utilized Next.js for building responsive and dynamic frontend interfaces, ensuring seamless user experiences.
- Designed and managed relational databases using Microsoft SQL Server (MSSQL) to support complex data operations.
- Built RESTful APIs and integrated third-party services to enhance application functionality and interoperability.
- Contributed to performance optimization, code refactoring, and implementation of best practices in both frontend and backend development.

FUTOPS TECHNOLOGIES, PUNE

Software Engineer

- Developed and maintained robust backend systems using Python, with hands-on experience in Django, Flask, and FastAPI frameworks.
- Built and optimized RESTful APIs and implemented GraphQL endpoints to support dynamic and scalable client-server interactions.
- Designed and managed relational databases using MySQL and MSSQL, including schema design, complex query development, and performance tuning.

PROJECTS

TARIFF DIGITIZATION

Objective:

To automate the extraction and digitization of tariff data from unstructured PDF documents using OCR technologies and store it in a structured MSSQL database for easy access and analysis.

Summary:

Designed and developed a full-stack application to extract data from PDF files using OCR techniques and store it in a relational database.

Implemented the backend using Python (Django REST Framework) to handle file processing, OCR parsing, and database operations. Utilized Pytesseract, PaddleOCR, Tabula, and Unstructured libraries for accurate text and table extraction from scanned documents. Developed a user- friendly frontend using React and Next.js for uploading PDFs and visualizing results. Data was processed and stored in a Microsoft SQL Server (MSSQL) database based on business-specific data mapping rules.

Key Contributions:

- Built RESTful APIs for OCR processing and database integration.
- Handled unstructured document parsing and table extraction using multiple OCR tools.
- Ensured accurate data mapping and validation before insertion into MSSQL.
- Developed a responsive UI for document upload and result tracking.

Centralized Authentication System

Technologies:

Django, Django REST Framework, JWT Tokens, Next.js, NextAuth

Description:

Designed and developed a secure and centralized authentication system using Django and JWT tokens for backend authentication. Integrated the backend with a Next.js frontend using NextAuth to enable seamless login, session management, and protected route access. Implemented secure API endpoints, token validation, and user role-based access control to ensure robust security across the application.

Key Contributions:

- Built and secured RESTful APIs with JWT-based authentication in Django.
- Integrated NextAuth for efficient session handling and social login support.
- Implemented role-based permissions and protected routing on the frontend.
- Ensured best practices for token storage, refresh flow, and session security.

DRISHYAM

Technologies:

Python, Django, Celery, Raw SQL

Description:

Designed and developed a custom data visualization platform similar to Power BI, enabling users to generate interactive dashboards and reports from large datasets. Implemented backend logic using Django, with Celery for handling asynchronous processing. Used raw SQL queries for complex data fetching and aggregation, ensuring high performance and flexibility in data operations.

Key Contributions:

- Built a scalable and efficient backend architecture for real-time data visualization.
- Utilized Celery to manage background tasks, improving responsiveness for large data loads.
- Replaced Django ORM with raw SQL queries for optimized and fine- grained control over data retrieval.
- Structured query logic to support advanced filtering, joins, and aggregations tailored to visualization needs.

Fraud detection for health insurance claims

Technologies:

Python, SQL, Scikit-learn, XGBoost, Random Forest, Logistic Regression, Pandas, NumPy, Matplotlib, Seaborn

Description:

Developed a hybrid fraud detection framework for insurance claims by combining rule-based anomaly triggers, and supervised machine learning. Claims were first followed by anomaly detection using medical and operational triggers. Filtered high-risk claims were then passed into supervised ML models to minimize false negatives and ensure higher fraud capture rates. The system significantly improved fraud detection accuracy while maintaining business interpretability.

Key Responsibilities:

- Collected, cleaned, and analyzed health insurance claim data using Python, SQL, and Pandas.
- Performed EDA to identify fraud-indicative trends and anomalies.
- Applied rule-based triggers for anomaly detection.
- Built and tuned ML models (Logistic Regression, Random Forest, XGBoost) to predict fraudulent claims.
- Delivered interpretable insights to support fraud investigation teams.