AWANTIKA SRIVASTAVA

Python Developer | Data Scientist | AI/ML

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PROFILE SUMMARY

Python Developer with **2+ years of experience** in **backend development**, building **robust, scalable, and efficient applications** using Python. Strong foundation in **Object-Oriented Programming (OOP)**, backend workflows, database management, and API development. Experienced in writing **clean, reusable, and optimized Python code**, debugging production systems, and collaborating with cross-functional teams. Exposure to **Django/Flask**, DevOps practices, and **AI/ML systems**, which adds value to backend-driven applications.

CORE TECHNICAL SKILLS

- **Programming & Data Science:** Python, C++, SQL., OOPs
- **Statistics & Mathematics:** Statistical Modeling, Descriptive Statistics, Hypothesis Testing, Probability, Sampling, Scenario Analysis.
- **Machine Learning:** Supervised & Unsupervised Learning, Regression, Classification, Clustering, Random Forest, Decision Trees, SVM, KNN, K-Means, XGBoost, Model Evaluation Metrics (Accuracy, Precision, Recall, F1-score, ROC-AUC).
- **Deep Learning & AI:** Neural Networks, CNN, RNN, LSTM, Transformers (BERT), Transfer Learning, Model Fine-tuning, TensorFlow, PyTorch,
- **Backend Web Development & Frameworks:** Django (Basic / Working Knowledge), Flask, FastAPI, REST APIs, Backend Web Development
- **NLP:** Text preprocessing, Tokenization, chunking, Sentiment Analysis, Transformer-based models, Computer Vision.
- **Databases:** SQL, Relational Databases, Query Optimization, Data Modeling
- **Cloud & DevOps (Exposure):** AWS (S3, SageMaker, Lambda), CI/CD, Docker, GitHub Actions
- **Tools:** Git, GitHub, Jupyter Notebook, Linux, Streamlit
- **Software Engineering:** Clean Code Practices, Debugging, Troubleshooting, SDLC, Version Control

EXPERIENCE

Python Developer / Data Scientist | PPS International Pvt. Ltd. **January 2024-Present**

- Worked extensively on **backend development using Python**, focusing on scalable and efficient application logic.
- Wrote **clean, reusable, and modular Python code** following **OOP principles**.
- Designed and optimized **database schemas and complex SQL queries** to improve backend performance.
- Built and maintained **RESTful backend services** to support ML and analytics applications.
- Managed **backend workflows**, data pipelines, and integration between services.
- **Troubleshot, debugged, and enhanced existing backend systems** to improve reliability.
- Collaborated with **product, engineering, and data teams** to deliver high-quality backend features.
- Supported deployment and monitoring of backend services in **AWS-based environment.**

PROJECTS

Railway Driver Assistance System (RDAS) | Enterprise ML Project

- **Designed and deployed a** real-time computer vision–based ML system **for unsafe** driver behavior detection using **CNN-based SSD MobileNet** model.
- Trained and optimized models on large-scale video datasets, achieving **20–25 FPS** real-time processing with **<150 ms inference latency**.
- Implemented **end-to-end ML pipelines** for data ingestion, preprocessing, model training, evaluation, and production inference.
- Deployed optimized models using **TensorFlow Lite** on edge/production environments for continuous monitoring.
- Built a **Flask-based web dashboard** to visualize detections and automatically record **30-second event clips**, reducing manual review effort.

Chatbot Using LLM & RAG | Applied ML Project

- Built a Lightweight **LLM-Powered chatbot** using **TinyLLaMA** to answer user queries over content.
- Implemented a **Retrieval-Augmented Generation (RAG) pipeline** to retrieve relevant resume sections for contextual question answering.
- Selected **TinyLLaMA** to ensure **low memory footprint and fast inference**, making the solution suitable for resource-constrained environments.
- Applied **prompt engineering techniques** to improve response relevance and consistency.
- Deployed the chatbot as an interactive **Streamlit web application** for real-time user interaction.

YouTube Comments Sentiment Analyzer | link - https://youtube-ai-analyzer-ndzqo6r2mepjrtsdjmwaxl.streamlit.app/

- Deployed transformer-based **NLP models** as **production-ready** services with **REST APIs**.
- **Fine-tuned** and served a **DistilBERT**-based **sentiment** classification model for large-scale text inference.
- **Built** and deployed an interactive **streamlit web application** to perform real-time **sentiment analysis** on YouTube comments.
- **Processed** high-volume text **data** with sub-second inference **latency** for real-time sentiment analysis.

CERTIFICATION

- IBM Data Science & AI Certification
- AWS Generative AI with Large Language Models
- OpenCV Computer Vision Certification

EDUCATION

IMS Engineering College, Ghaziabad **September - 2020**
Bachelor of Technology