

# AWANTIKA SRIVASTAVA

Noida, Uttar Pradesh

Data Scientist/Data Analyst | Machine Learning | Gen AI | LLMs

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## PROFILE SUMMARY

Data Scientist/Data Analyst with 2+ years of hands-on experience in building, deploying, and optimizing machine learning and generative AI solutions. Strong expertise in Python, SQL, supervised & unsupervised learning, time-series forecasting, LLMs, RAG pipelines, and MLOps. Proven experience translating complex business problems into scalable data science solutions with a focus on sustainability, ESG analytics, and enterprise-grade ML systems.

## CORE TECHNICAL SKILLS

- Programming:** Python (Advanced), Numpy, Pandas, Scikit-learn, SQL, C++, Excel
- Statistics & Mathematics:** Statistical Modeling, Hypothesis Testing, Confidence Intervals, A/B Testing, Experimental Design, Causal Inference
- Machine Learning:** Supervised & Unsupervised Learning, Regression, Classification, Clustering, Random Forest, Decision Trees, SVM, KNN, K-Means, XGBoost, Model Evaluation Metrics, Time-Series Forecasting, Recommendation System
- Deep Learning :** Neural Networks, CNN, RNN, LSTM, Transformers (BERT), Transfer Learning, Model Fine-tuning, Computer Vision, Time-series Forecasting, ARIMA, SARIMA
- Deep Learning Frameworks:** TensorFlow, keras, Pytorch, TensorFlow Lite.
- Generative AI:** LLMs, Prompt Engineering, Retrieval Augmented Generation (RAG), Embeddings, Vector Databases
- MLOps & Deployment:** MLflow, Kubeflow, Model Deployment, Model Monitoring, CI/CD for ML
- Cloud Platforms:** AWS SageMaker, AWS Lambda, AWS S3, Azure ML Services
- Databases & Visualization:** SQL Databases, Oracle ERP Data, Environmental Datasets, PowerBI, Seaborn, Plotly, Matplotlib
- Collaboration & Communication:** Cross-functional Collaboration, Stakeholder Communication, Insight Presentation

## EXPERIENCE

Data Scientist / Data Analyst | PPS International Pvt. Ltd.

January 2024-Present

- Designed and developed **end-to-end machine learning pipelines**, covering data ingestion, preprocessing, model training, evaluation, and deployment.
- Built and optimized **ML models** using Python, scikit-learn, **TensorFlow**, and **PyTorch** to solve real-world business problems.
- Developed **RESTful ML services using FastAPI** for model inference and integration with downstream systems.
- Implemented **GenAI and LLM-based workflows**, including prompt engineering and retrieval-based augmentation.
- Deployed and tested ML solutions on **cloud environments (AWS)**, ensuring scalability, reliability, and performance.
- Applied **MLOps best practices**, including **CI/CD pipelines**, model versioning, monitoring, and automated validation checks.
- Worked closely with global engineering and product teams to translate business requirements into robust technical implementations.
- Supported **peer reviews** and ensured analytical outputs met quality and documentation standards required in regulated environments.

## PROJECTS

Railway Driver Assistance System (RDAS) | Enterprise ML Project

- Designed** and deployed a real-time **computer vision ML system** for unsafe driver behavior detection using **CNN-based models (SSD MobileNet with TensorFlow)**.
- Built **end-to-end ML pipelines** including data ingestion, preprocessing, feature extraction, model training, evaluation, and deployment.
- Optimized models using **TensorFlow Lite** to achieve **20–25 FPS real-time inference** with **<150 ms latency** on production/edge environments.
- Exposed model inference through **FastAPI-based REST services** for integration with downstream systems and monitoring tools.
- Performed **error analysis, bias checks, and performance monitoring** to improve model robustness and operational reliability.

Chatbot Using LLM & RAG | Applied ML Project

- Built a Lightweight **LLM-Powered chatbot** using **TinyLlama** to answer user contextual questions over structured resume data.
- Implemented a **Retrieval-Augmented Generation (RAG) pipeline**, including document indexing and similarity-based retrieval, to ground LLM responses.
- Applied **prompt engineering and response evaluation techniques** to improve answer relevance, consistency, and factual accuracy.
- Developed **FastAPI-based inference endpoints** to serve the LLM pipeline in a scalable manner.
- Deployed the application using **Streamlit**, focusing on low memory usage, fast inference, and user-friendly interaction.

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

- Built an end-to-end **NLP pipeline** for sentiment analysis using **transformer-based models (BERT/DistilBERT)**.
- Performed text preprocessing, feature extraction, model training, and evaluation on large volumes of user-generated data.
- Evaluated model performance using **precision, recall, and F1-score**, and iteratively improved results through error analysis.
- Served the trained model via **FastAPI APIs** for real-time inference and integration.
- Analyzed sentiment trends to generate insights that can inform **product and user-experience decisions**.

## CERTIFICATION

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

## EDUCATION

IMS Engineering College, Ghaziabad  
Bachelor of Technology (Electrical and electronics engineering)

September - 2020