AWANTIKA SRIVASTAVA

Data Scientist | Machine Learning | GenAI | Cloud AI

+91-8920482037 |sawantika81@gmail.com| LINKEDIN |Github

PROFILE SUMMARY

Data Scientist with 2+ years of experience in designing and deploying **machine learning and AI solutions**. Proficient in **Python, SQL, ML/DL, and GenAI (LLMs, RAG)** with hands-on experience in **end-to-end ML pipelines, APIs, and cloud deployment**. Strong at converting business problems into **scalable, data-driven solutions**.

CORE TECHNICAL SKILLS

- **Programming & Data Science:** Python, C++, SQL, Numpy, Pandas, SciPy, scikit-learn
- **Statistics & Mathematics:** EDA, Statistical Modeling, Hypothesis Testing, Probability, Linear Optimization, Trend Analysis.
- **Machine Learning:** Supervised & Unsupervised Learning, Regression, Classification, Clustering, Random Forest, Decision Trees, SVM, KNN, K-Means, XGBoost, Hyperparameter Tuning.
- **Deep Learning & GenAI:** Neural Networks, CNN, RNN, LSTM, BERT, Transfer Learning, Generative AI, LLMs, Prompt Engineering, RAG, Hugging Face, LangChain
- **Frameworks & Tool:** TensorFlow, Keras, Pytorch, Flask, Git, GitHub.
- **MLOps & Model Lifecycle:** MLflow, Model Versioning, CI/CD for ML Pipelines, Model Monitoring, Performance Regression Tracking, Experiment Tracking, Production ML Workflows
- **NLP**: Text preprocessing, Tokenization, Sentiment Analysis, Transformer-based models, NLU, OpenCV.
- **Cloud & Platforms:** AWS (EC2, S3), Cloud-based ML workflows, IBM Cloud (exposure).
- **MLOps & Engineering:** CI/CD for ML, Model Versioning, Monitoring, Automated Validation, Docker.
- **Professional Skills:** Business Acumen, Problem Solving, Stakeholder Communication, Agile Collaboration, AI Ethics.

EXPERIENCE

Data Scientist / Machine Learning Engineer | PPS International Pvt. Ltd. **January 2024-Present**

- Designed and developed **end-to-end machine learning pipelines**, covering **data ingestion, preprocessing, feature engineering, model traning.**
- Built and optimized **ML models (classification & regression)** using **Python and scikit-learn**, ensuring robustness, interpretability, and performance.
- Applied **statistical modeling and hypothesis-driven analysis** to validate assumptions and support data-driven business decisions.
- Conducted **exploratory data analysis (EDA)** to identify trends, biases, anomalies, and data quality issues impacting downstream models.
- Developed **RESTful ML inference services using FastAPI**, enabling integration with production systems.
- Implemented **GenAI and LLM-based workflows**, including **prompt engineering and retrieval-augmented generation (RAG)** for NLP use cases.
- Deployed ML solutions on **cloud environments (AWS)** with a focus on **scalability, reliability, and performance**.
- Applied **MLOps best practices**, including CI/CD pipelines, model versioning, monitoring, and automated validation checks.

PROJECTS

Railway Driver Assistance System (RDAS) | Enterprise ML Project

- Built and deployed a **production-grade machine learning system** to detect unsafe driver behavior, translating real-world safety requirements into AI-driven solutions.
- Designed and owned **end-to-end ML pipelines** covering data ingestion, preprocessing, feature engineering, model training, evaluation, and inference for real-world deployment.
- Trained **CNN-based computer vision models (SSD MobileNet)** using **TensorFlow**, and optimized inference using **TensorFlow Lite** for low-latency environments.
- Achieved **real-time inference performance (20–25 FPS, <150 ms latency)**, enabling near real-time decision-making in operational settings.
- Integrated model predictions into **downstream systems via REST APIs**, delivering **actionable insights** to support operational and safety-related decision

Chatbot using LLM & RAG | Applied ML Project

- Built a **production-grade Generative AI (GenAI) application** using **Large Language Models (LLMs)** and **Retrieval-Augmented Generation (RAG)** for context-aware question answering.
- Designed and implemented **document ingestion, embedding generation, vector retrieval, and LLM inference orchestration pipelines**.
- Applied **prompt engineering, response evaluation, and reliability tuning** to improve output accuracy, consistency, and relevance.
- Deployed the solution as an **observable LLM inference service**, aligning with modern **GenAI and LLM production workflows**.

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

- Developed an **end-to-end NLP modeling system** using **BERT / DistilBERT** for large-scale sentiment classification.
- Performed **EDA, text preprocessing, feature engineering, model training, and statistical evaluation** on real-world user-generated data.
- Conducted **baseline comparisons and experiment tracking** to optimize model performance.
- Deployed the model as a **REST API-based inference service** to deliver actionable sentiment insights to business stakeholders.

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 (Electrical and electronics engineering)