AWANTIKA SRIVASTAVA

AI Engineer | Data Scientist | Machine Learning, LLMs & AWS

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PROFILE SUMMARY

AI / ML Engineer with **2+ years of enterprise experience** in designing, building, and productionising **machine learning, deep learning, and NLP solutions** using Python. Strong hands-on experience with **ML pipelines, model inference optimization, CI/CD, MLOps practices, and cloud platforms**. Proven ability to collaborate with data scientists, quants, and engineering teams to deliver **scalable, production-ready AI/ML systems** aligned with business and risk standards.

CORE TECHNICAL SKILLS

- **Programming & Data Science:** Python, C++, SQL., Pandas, Numpy, Scikit-learn.
- **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.
- **Deep Learning Frameworks:** TensorFlow, keras, Pytorch, TensorFlow Lite.
- **NLP:** Text preprocessing, Tokenization, Sentiment Analysis, Topic Modeling (LSA, LDA), Transformer-based models, NLP Pipelines.
- **LLMs:** Transformers, HuggingFace, DistilBERT, Prompt Engineering, LangChain, RAG.
- **MLOps & DevOps:** CI/CD Pipelines, Jenkins, Git, GitHub Actions, Model Versioning, Monitoring, SDLC.
- **Cloud Platforms:** AWS Sagemaker, S3, Lambda, Bedrock (Exposure), CI/CD, Jenkins, GitHub Action.
- **Software Engineering:** REST APIs, Model Inference Optimization, Agile, Distributed Systems (basic understanding)

EXPERIENCE

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

- Developed **production-grade Python ML components** in enterprise environments following SDLC and DevOps best practices.
- Built and optimized **end-to-end ML pipelines** including data ingestion, preprocessing, feature engineering, model training, evaluation, and deployment.
- Worked with **data scientists and stakeholders** to onboard ML/DL/NLP use cases into production systems.
- Implemented **model inference and integration frameworks**, ensuring low latency and scalability.
- Used **CI/CD pipelines (Jenkins, Git)** for model training, versioning, testing, and release.
- Deployed and monitored ML models on **cloud platforms (AWS)** with exposure to **GCP/Azure-based architectures**.
- Ensured adherence to **risk, quality, and governance standards**, supporting post-implementation reviews.
- Collaborated in **cross-functional global teams** to deliver AI/ML solutions for business use cases.

PROJECTS

Railway Driver Assistance System (RDAS) | Enterprise ML Project

- Designed and productionised a **real-time AI/ML system** to detect unsafe driver behaviour from video streams.
- Trained and optimized **CNN-based object detection models (SSD MobileNet)** using TensorFlow and PyTorch.
- Built **scalable ML pipelines** for data processing, training, evaluation, and inference deployment.
- Deployed models using **TensorFlow Lite**, enabling efficient real-time monitoring.
- Developed REST-based services and dashboards to integrate ML outputs with downstream systems.

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 (Electrical and electronics engineering)