AWANTIKA SRIVASTAVA

Associate Machine Learning Engineer | AI & Machine Learning Solution

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PROFILE SUMMARY

Associate Machine Learning Engineer with **2 years of experience** in developing, deploying, and operationalizing **machine learning and AI solutions**. Strong foundation in **machine learning, deep learning, and statistical analysis**, with hands-on experience across the **end-to-end ML lifecycle**—from problem understanding and data preparation to model development, evaluation, and deployment. Proven ability to support **proof-of-concepts (PoCs)**, collaborate with cross-functional teams, and deliver scalable ML solutions aligned with business objectives.

CORE TECHNICAL SKILLS

- **Programming Languages:** Python, C, C++, SQL.
- **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, Hyperparameter Tuning.
- **Deep Learning & AI:** Neural Networks, CNN, RNN, LSTM, Transformers (BERT), Transfer Learning, Model Fine-tuning, RAG, LLMs.
- **Deep Learning Frameworks:** TensorFlow, keras, Pytorch, TensorFlow Lite.
- **NLP**: Text preprocessing, Tokenization, Sentiment Analysis, Topic Modeling (LSA, LDA), Transformer-based models.
- **Data Handling & Databases:** Data Retrieval & Analysis, SQL Queries, MySQL, SQL Server, MongoDB.
- **Cloud & Data Science Platforms:** AWS, Sagemaker (Exposure), GCP (Exposure), Databricks (Exposure).
- **Tools & SDLC:** Git, GitHub, JIRA, Confluence, Structured Software Development.

EXPERIENCE

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

- **Supported** solution development and **proof-of-concepts (PoCs)** by building machine learning and deep learning models aligned with business use cases.
- Applied **machine learning algorithms and statistical techniques** for predictive modeling, pattern recognition, and decision support.
- Implemented **end-to-end ML pipelines**, including data collection, preprocessing, feature engineering, model training, and evaluation.
- Collaborated with ML engineers, data engineers, and IT teams to **evaluate deployment options** and integrate ML solutions into production systems.
- Deployed and monitored ML models, ensuring reliability, **performance**, and scalability.
- Followed **SDLC best practices**, including version control, documentation, testing, and defect resolution.
- Contributed to **capability building** by sharing knowledge, supporting onboarding, and collaborating across teams.

PROJECTS

Railway Driver Assistance System (RDAS) | Enterprise ML Project

- **Designed and deployed a** real-time computer vision–based ML system **to detect unsafe driver behaviors from continuous video streams**.
- **Trained** and optimized **CNN-based object detection models (SSD MobileNet architecture)** to perform real-time inference on video data.
- Implemented **end-to-end ML pipelines** covering data ingestion, preprocessing, model training, evaluation, and production inference.
- Achieved **20–25 FPS real-time processing** with **<150 ms inference latency** by optimizing models for deployment.
- Built and integrated a **Flask-based web interface** to visualize detections and automatically recorded **30-second event clips**, reducing manual review effort.

Amazon Stock Price prediction | Applied ML Project

- **Built batch-oriented ML workflows** for time-series forecasting using **LSTM** models.
- Implemented data **preprocessing**, feature engineering, and model **evaluation pipelines** on **large** historical datasets.
- Designed **sliding-window** based **sequence generation** and trained LSTM model 5-year stock price data.
- Evaluated model performance using appropriate regression **metrics** and **trend-based analysis** for short-term forecasting.

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)