AWANTIKA SRIVASTAVA

Associate Machine Learning Engineer | Marketing Analytics & MMM

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PROFILE SUMMARY

Associate Machine Learning Engineer with 2 years of experience in developing and applying **statistical and machine learning models** for business-focused analytics. Strong foundation in **regression modeling, statistical analysis, and end-to-end data science workflows**, with hands-on exposure to **Marketing Mix Modeling (MMM)** concepts. Experienced in data preparation, exploratory data analysis, model development, and translating analytical results into **clear, business-friendly insights**. Proficient in Python and SQL with exposure to cloud and scalable analytics platforms.

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, Time-Series forecasting, ARIMA, SRIMA, Model Evaluation, Feature engineering, TensorFlow, Keras, PyTorch
- **Modeling Techniques:** Linear Regression, Mixed Effects Models (Exposure), Hierarchical Modeling (Exposure), Bayesian Modeling (Exposure)
- **NLP**: Text preprocessing, Tokenization, Sentiment Analysis, Topic Modeling (LSA, LDA), Transformer-based models.
- **Marketing & MMM Concepts:** Marketing Mix Modeling (MMM – Exposure), Adstock, Carryover, Saturation, Long-term & Short-term Impact Analysis
- **Data Handling & Platforms:** Data Preparation, EDA, SQL Queries, MySQL, Databricks (Exposure)
- **Cloud & Tools:** AWS (Exposure), Git, GitHub, JIRA, Structured SDLC Practices

EXPERIENCE

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

- Supported development of **data-driven analytical solutions**, including regression-based models for business use cases.
- Applied **statistical and machine learning techniques** to analyze structured datasets and generate actionable insights.
- Worked on **end-to-end data science pipelines**, including data extraction, cleaning, feature engineering, modeling, and evaluation.
- Contributed to analytical workflows aligned with **marketing and performance measurement use cases**.
- Collaborated with cross-functional teams to validate model outputs and ensure **business relevance and interpretability**.
- Assisted in evaluating model performance and translating results into **clear insights for stakeholders**.
- Followed SDLC best practices including version control, documentation, testing, and iterative improvements.

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)