AWANTIKA SRIVASTAVA

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KEY SKILLS

- **Languages**: Python, C,C++
- **Statistical Model**: Descriptive stats, Sampling, Probability, Hypothesis Testing, Normal Distribution
- **Machine Learning**: Regressions, Tree Based Algorithms, KNN, Clustering, SVM, RF, TensorFlowLite
- **Deep Learning**: Neural Network, CNN, RNN, Computer Vision, Image & Text Classification, NLP, LSTM, LLMs
- **Frameworks**: TensorFlow, GTK
- **Databases**: MySQL, SQL Server, MongoDB
- **Tools**: Git, PowerBI, Tableau
- **IDEs**: VS Code, Jupyter Notebook, Kaggle Notebook, Codeblocks

EXPERIENCE

Software Engineer (ML Engineer) | PPS International Pvt. Ltd. **January 2024-Present**

Project: - Real-Time Monitoring System for Locomotive Pilots

Tools: Python, Pandas, NumPy, Matplotlib, Seaborn, Roboflow, TensorFlow , SSD mobilenet, Flask , HTML, CSS

- **Designed** and **Developed** a **real-time safety monitoring system** to analyze locomotive pilot's alertness and detect **unsafe behaviors** such as **phone usage**, **headphone** wearing, **yawning** and **smoking** using a custom-trained **TensorFlow Lite SSD MobileNetV2** model.
- Successfully **deployed** the system on an **ASUS IoT X6425** platform running Ubuntu, enabling efficient on-device inference optimized for real-time video streams.
- **Implemented** on automated event-triggered recording pipeline: if any unsafe behavior (excluding "person") is continuously detected for **5 sec**. , the system starts recording and captures **30 sec of video evidence**, storing it securely for audit and review.
- **Developed a Web-based dashboard** that displays all **detected events with timestamps**, video recordings and detection categories, **improving incident** traceability and operational visibility.

Project: - Shared Memory- Based TFT Display for Public Information Systems

Tools: C programming, GTK Framework, Embedded Linux, Inter Process Communication, Verdin Module

- The system is designed to display real-time travel information, **including videos, images, and text ensuring** seamless communication with passengers.
- The implementation utilizes the **GTK framework** for the graphical user interface and run on **verdin module**.

Project: - Journey Creation Tool

Tools: Python programming, TKinter, SQL database

- **Developed** a Python-based tool that **creates** journeys for the **Train Information Management System** based on user input, which will be used in the **PIS system**, enhancing the passenger's **real-time journey** information experience by **80-90%.**
- **Store** all journeys and information in **SQLlite** in table format. And join Relevant table to **interconnect the data.**

PERSONAL PROJECTS

Project: -Amazon Stock Price Prediction

Tools: Python, Pandas_ta, NumPy, Matplotlib, Seaborn, yfinance, Keras model, Deep learning , LSTM,

- **Developed** an end-to-end **Amazon stock price forecasting system** using **LSTM** for future closing price prediction
- **Performed** complete data **preprocessing**, feature engg., and generated **technical indicators** (RSI, EMS, intraday movement).
- Applied **Time Series Analysis** including **trend/seasonal** decomposition and **ADF stationarity tests**.
- Built advanced visualizations (**candlestick charts**) and trained a **multi-layer LSTM model** to predict next-day prices.

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

Tools: Python, Deep learning, BERT, Pytorch, Streamlit, Pandas

- **Real-time** YouTube **sentiment** analyzer built using **DistilBERT** with **Streamlit**.
- **Scalable** comment extraction **pipeline** developed using YouTube Data **API** with pagination.
- **End-to-End** AI web app **deployed** on Streamlit Cloud with **secure API** handling.

EDUCATION

IMS Engineering College, Ghaziabad **September - 2020**

Bachelor of Technology (Electrical and electronics engineering)