BYRI BABAJI

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WORK EXPERIENCE

Data Scientist Intern| ProITBridge PVT LTD, Bangalore (Jul 2024 – Present)

- Developed a SQL-driven price monitoring system using Python, MySQL, and APIs to track price violations across marketplaces. Implemented dynamic query-based processing and real-time exchange rate conversion, enabling accurate violation detection and Tracking.
- Designed a Quality Check System integrating the YOLO object detection model for automated defect detection in metal plates.
- Built a resume classification system using a large language model (LLM) to extract skills and classify resumes according to skill set, reducing the manual HR screening time by 40%.
- Engineered and fine-tuned machine learning models for tasks such as classification, regression, clustering, and recommendation systems, enhancing model accuracy through feature selection and hyperparameter tuning.
- Performed feature engineering on raw datasets, identifying key attributes that enhanced model performance and predictive accuracy.

PROJECTS

Minimum Advertised Price (MAP) Monitoring System **Aug 2024 – Sep 2024**

- Designed a dynamic SQL-based system to process seller data, compare advertised prices with threshold values, and store violations in a monitoring table.
- Implemented real-time exchange rate conversion to handle regional pricing using API integration and caching techniques.
- Developed a rule-based violation detection mechanism: If a seller's advertised price falls below the Minimum Advertised Price (MAP) set by the product owner or brand owner, it is flagged as a violation.
- Identified fraudulent sellers using alias names, fake store names, and multiple marketplace accounts to bypass MAP policies.
- Optimized data handling by dynamically selecting seller tables based on input dates, improving tracking efficiency.
- Aggregated violations per Region and Subcategory, enabling early detection of high-risk sellers and ensuring effective policy enforcement.

Multimedia Recommendation Engine **Oct 2024 – Nov 2024**

- Unstructured data extracted and cleaned from web sources using BeautifulSoup and Pandas, followed by exploratory analysis to identify key features.
- Designed a content-based recommendation system using TF-IDF vectorization to analyze multimedia content and user behavior, leveraging a linear kernel to compute similarity scores for personalized recommendations.

Hole Detection in Metal Parts Using YOLO Model **Dec 2024 – Jan 2025**

- Build a computer vision solution for industrial defect detection using YOLO object detection, focusing on real-time processing.
- Curated and annotated a custom dataset and increased the size of dataset by using augmentation techniques to train and validate the model, emphasizing robustness in varying lighting and material conditions.
- Optimized pre-processing techniques to boost model performance and exported results in JSON format.

Resume Classification Using NLP **Feb 2025 – Mar 2025**

- Developed a Resume Classification System utilizing a Large Language Model (LLM) to extract skills and classify resumes based on skill sets, reducing manual HR screening time by 40%.
- Extracted text, data cleaning, EDA, and visualization to improve classification accuracy.
- Applied NLP techniques like tokenization, lemmatization, and POS tagging for preprocessing.
- Developed an interactive Streamlit-based UI for resume classification.

EDUCATION

St. Martin's Engineering College, B.Tech in Mechanical Engineering, Hyderabad **2021 – 2024**
SLC's Polytechnic College, Diploma in Mechanical Engineering, Hyderabad **2018 – 2021**
ZPHS Narayankhed, SSC, Narayankhed **2018**

TECHNICAL SKILLS

Languages: Python, SQL

Technologies/Frameworks: TensorFlow, Keras, Scikit-learn, Pandas, NumPy, Matplotlib, Seaborn, Streamlit, BeautifulSoup, Selenium

Developer Tools: VS Code, Jupyter Notebook, Google Colab

Version Control: Git (GitHub for repository hosting)

SOFT SKILLS

Problem-Solving, Analytical Thinking, Communication, Team Collaboration, Time Management

ACHIEVEMENTS

- Presented a paper on "Intelligent Autonomous Six-Legged Robot" at St. Martin's Engineering College.

DECLARATION

I hereby declare that the information provided above is true to the best of my knowledge and belief.