Teja Sajja

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Education

George Mason University — Virginia, USA
Master of Science in Computer Science — 2024

Gandhi Institute of Technology and Management University — Hyderabad, India
B.Tech in Computer Science and Engineering — 2022

Experience

CELIGO - Engineering Intern — Sep 2021 - Mar 2022

- Collaborated with cross-functional teams to streamline processes using Postman and integrator.io, achieving a 15% increase in team efficiency. Integrated different datasets to create efficient work flows between multiple applications. Developed a deep understanding of best practices in data integration, resulting in a 40% improvement in overall data management processes.

Graduate Teaching Assistant – Applied Machine Learning — Aug 2023 - Dec 2023

- Effectively coordinated and guided 25 working professional students. Responsibilities included answering subject-related questions, designing and administering relevant assignments, quizzes, and exams, as well as evaluating student work to ensure rigorous academic standards and a practical understanding of machine learning applications.

Skills

- Languages: Python, JavaScript, Java, SQL
- Databases: MySQL, PostgreSQL, MongoDB, JSONiq, Cassandra
- Machine Learning: Classification, Clustering, Regression, Ensemble Modeling, Dimensionality Reduction, Feature Engineering, Model Evaluation and Validation.
- Deep Learning: TensorFlow, PyTorch, Convolutional Neural Networks (CNN), Transformers, LLM's, object-detection(R-CNN), Autoencoders, BERT
- Tools and Frameworks: PySpark, Databricks, Scikit-Learn, Azure ML Studio, MLflow, TensorFlow, PyTorch
- Web technology Frameworks: React, React native, Next.js, Django, Flask, Spring-boot, FastAPI, postman, integrator.io

Projects

Intelligent Resume Tailoring System Using LLMs

- Developed a cutting-edge tool that customizes resumes based on job descriptions using advanced AI technologies.
- Utilizes LangChain and Google Gemnai to analyze and extract essential skills, keywords from job descriptions. and OpenAPI to tailor resume content to specific job requirements.
- Integrates Vector DB Fassi for optimal storage and retrieval of job and resume data. Built with Streamlit for a seamless user experience.

Enhancing Twitter Bot Detection
via Hybrid RNN Models and Metadata-Driven Features with Twibot-20 Dataset

- Leveraged Databricks for distributed computing and PySpark for data preprocessing, which included data cleaning, normalization, and feature engineering.
- Developed a hybrid approach using LSTM and Contextual LSTM models to capture the sequential nature and contextual dependencies in tweet data.
- Integrated ensemble model predictions from account metadata as additional features to improve detection accuracy. Conducted extensive evaluations and validations, confirming an 82% accuracy in bot detection.

Enhanced ECG Classification System with CNN and Heart Rate Integration

- Implemented a VGG-inspired Convolutional Neural Network (CNN) for ECG image feature extraction.
- Enhanced the model architecture by integrating heart rate data using PyTesseract (OCR). Then combined these CNN features along with the heart rate data for advanced ECG classification.
- Conducted extensive cross-validation and achieved an overall accuracy of 78% in classifying ECG signals.

Interactive Whiteboard Drawing Application — Website

- Developed a React-based whiteboard app integrating MediaPipe for hand gesture recognition, enabling intuitive drawing through finger movement tracking also Optimized hand tracking for accurate, responsive drawing experiences, ensuring seamless user interaction across diverse environments.