SK Eswar Sudhan

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Education

Amrita Vishwa Vidyapeetham, Coimbatore 2020 - 2024
B.Tech in Computer Science and Engineering (Artificial Intelligence) *CGPA: 7.98/10*

Maharishi International Residential School (CBSE), Chennai 2018 - 2020
All India Senior School Certificate Examination *Percentage: 93.4%*

Technical Skills

Languages: Python, Java, MATLAB, SQL
Tools & Libraries: Git, Office 365, TensorFlow, PyTorch
Web & Databases: HTML, CSS, Reactjs, MySQL, Django RestFramework, Flask, MongoDB
Officewares: Office 365

Experience

FocusR Consultancy and Technology - Python and AI developer (Internship) Feb 2024 – May 2024

- Built a Large Language Model (LLM)-powered hiring application using React.js for front-end and Django REST Framework back-end.Integrated LLM technology for advanced candidate shortlisting.

Turing - Delivery Data Analyst (Full time) Aug 2024 – Present

- Analyzed Python code from back-end, data science, and machine learning domains generated by LLMs, reporting inefficiencies and limitations in coding capabilities to clients including Apple, Amazon, and ByteDance.

Certification and Achievements

- **GATE 2024 (Data science and Artificial Intelligence) Qualified**
- **Contributed with a team of 6 to a successful Proof of Concept (PoC) project for Amazon in Turing**
- **AWS Cloud Essentials Badge**
- **Reinforcement Learning on-ramp**

Projects

Covid 19 forecasting using DMD and comparative analysis with other models Dec 2022 – Jan 2023

* **Objective**: To forecast covid 19 confirmed cases in States of USA using DMD and comparing with forecasting models like SARIMAX, ARIMA, ARMA on time series data.
* **Tools/Technologies**: MATLAB, Python(Pandas, Matplotlib, Statsmodel)
* **Outcome**: Achieved an RMSE value of 969 cases using DMD, outperforming the next best model by 30%.

AI-Powered Satellite Image Analysis and Chatbot for Disaster Management Mar 2024 – May 2024

* **Objective**: Develop a pipeline to classify satellite images as flooded or non-flooded using a semi-supervised model. BLIP generates captions, and a VQA model provides question-answer pairs for contextual insights. A chatbot integrates this information to assist disaster management teams with image-specific queries.
* **Tools/Technologies**: Python(Langchain, Tensorflow, Flask), HuggingFace, MongoDB, Reactjs
* **Outcome**: Developed an end-to-end application that processes satellite images and answers user queries based on image-specific insights.

Apple model evaluation Oct 2024 - Dec 2024

* **Objective**: Develop a comprehensive report identifying coding inefficiencies and errors in the Apple model currently in the testing phase. This involves designing complex user prompts, rigorously evaluating the generated Python code, and assessing its performance in Backend, Data Science, and Machine Learning domains.
* **Tools/Technologies**: Visual Studios, Google Colab, Python (Pandas, Scikit-learn, Matplotlib, Seaborn, SQLAlchemy, logging)
* **Outcome**: Evaluated and analyzed 100+ Python code snippets per week, providing detailed insights across the mentioned domains.

Publications

Enhancing Chatbot Interaction with Emotion Recognition: Emobot CIS-2023

- Built a novel chatbot using Langchain framework, Streamlit and integrated it with emotion detector that uses Resnet50 on 6 emotion classes to provide emotional intelligence.

Telugu News Category Prediction: Comparative Study of ML Algorithms ACL-2023

- Performed a comparative study on ML algorithms like Naive Bayes, SVM, Random Forest, KNN on category classification using features extracted by N-gram, tf-idf, Word2vec-CBOW, Word2vec-SkipGram on news article. Maximum accuracy 0.91 was reported by Word2Vec-SkipGram in-combination with Polynomial SVM