SUSMA R

Data Scientist / ML Engineer / AI Engineer

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Summary

Proficient in Machine Learning, Data Analysis, and AI, with expertise in Python, SQL, and TensorFlow and PyTorch. Experienced in developing predictive models and passionate about leveraging data to solve real-world problems. Adept at applying analytical skills to drive insights and inform decision-making processes.Passionate about transforming data into insights to tackle real-world problems.

Work Experience

Data Science Internship, Bosch Global Software Technologies (Bangalore)　　　Jan 2024 - May 2024

Worked on Responsible AI to create End-to-End Robustness evaluation for AI/ML models. Utilized advanced evaluation techniques including Adversarial testing, Randomized smoothing, Counterfactual Explanation, and Out-of-distribution detection. Employed FastAPI for API creation, ensuring seamless integration with the frontend for model evaluation and visualization.
Tech Stack : Python, FastAPI

Project Trainee, Bosch Global Software Technologies (Coimbatore)　　　Jul 2022 - Nov 2022

Automated data collection from JIRA server for live ticket status and metrics extraction. Implemented interactive RNM (Metrics) dashboard, displaying real-time updates on ticket priorities, productivity, and quality. Engineered actionable insights into ticket management, empowering employees with informed decision-making capabilities.
Tech Stack : Python, JIRA, Plotly, Dash

Projects

Weather Anomaly Detection System

Engineered a weather anomaly detection system leveraging Local Outlier Factor (LOF) with novelty detection. Conducted comprehensive data preprocessing and scaling using Python. Developed a Streamlit application for interactive anomaly detection and integrated Explainable AI (XAI) using LIME for model interpretation and feature importance analysis.
Tech Stack : Python, Pandas, NumPy, Scikit-learn, Streamlit, LIME, VS Code

Student Placement Prediction

Developed a web application that utilizes machine learning classification techniques to predict student placement outcomes with an accuracy of 88%. Leveraging historical student data, the application employs predictive models to provide reliable placement forecasts. Users can interactively input student attributes and receive real-time predictions.
Tech Stack : Python, HTML, Flask (Python), Jupyter Notebook

Legal Information Retrieval System

Developed and AI-powered system using Python and OpenAI to translate user queries into relevant legal information, integrating Llama Index, Chainlit, and a local vector database. Implemented tools for extracting key legal concepts and identifying corresponding clauses in updated legal texts, ensuring precision and relevance line.
Tech Stack : Python, OpenAI, Llama Index, Chainlit, Local Vector Database

SKILLS

Areas of Interest	Machine Learning, Deep Learning, NLP, Generative AI, Large Language Models (LLMs), Retrieval-Augmented Generation (RAG), Statistical Analysis, Web Technology, Database Management System
Programming Languages	Python, SQL, C
Frameworks and Platforms	Tensorflow, Pytorch, Keras, Hugging Face Transformers, OpenAI GPT, BERT, Flask, FastAPI, Eclipse IDE, Netbeans IDE
Database	MySql, MongoDB
Tools	Jupyter Notebook, PowerBI, Tableau, VS Code, RapidMiner, Node.js
Web Development	HTML, CSS, JavaScript, React.js

EDUCATION

M.Sc. Decision and Computing Sciences , Coimbatore Institute of Technology   2024
(CGPA: 8.64)

Grade - 12 , Sri Ramakrishna Matriculation Higher Secondary School   2019
(Percentage: 79.5%)

Grade - 10 , Sri Ramakrishna Matriculation Higher Secondary School   2017
(Percentage: 98%)

PUBLICATIONS

"A Real Time Web-Based Flask Application For Detection Of Facial Emotions Using Deep Learning Model" (Apr. 2023). In: *JASC*.

"Mushroom Classification To Detect Their Edibility using ML Algorithms and Rapid Miner" (Apr. 2023). In: *IRJMETS*.

"Comprehensive Framework for Robustness Evaluation on Numeric Data Classification" (June 2024). In: *ICCCNT 2024 held at IIT-Mandi, IEEE Electronics Packaging Society*.

CERTIFICATES

- Data Analytics with Python - NPTEL
- Tools for Data Science - Coursera
- SQL (Advanced) - HackerRank