PRANATHI SREE RATAKONDLA

pranathir@outlook.com| 9110764177 | LinkedIn

EDUCATION

Dr KKR's Gowtham International School, Vijayawada 2019
X (CBSE) Percentage: 94.2%

FIITJEE International School, Vijayawada 2021
XII (Higher Secondary, AP BIE) Percentage: 97.5%

PSG College of Technology, Coimbatore 2021-2026
Integrated MSc Theoretical Computer Science CGPA (8th Sem ending April 2025): 8.76
Related ongoing / completed coursework:
- Data structures and algorithms, Advanced Data Structures
- Object oriented programming, DBMS, Operating systems, Computer networks
- Machine Learning, Deep Learning, Data Mining, Social Network Analysis, Artificial Intelligence

TECHNICAL SKILLS

Languages: Python, C++, SQL.
Frameworks/Libraries: pandas, nltk, scikit-learn, plotly, dash, flask, pytorch, OpenCV, Keras, dask.
Databases: PostgreSQL, mySQL, Oracle.
Tools: SSMS, Amazon QuickSight, VS Code, Git, Blender.

AREAS OF INTEREST: Database Management System, Machine Learning, Data Mining, Backend Development.

PROJECTS

Fusion Strategies for Texture Detection using Deep CNNs (developed in python)
- Explored texture recognition using multiple deep CNNs namely, ResNet50, GoogLeNet, and VGG16 combined with Local Binary Patterns to integrate fine-grained texture features.
- Used KTH-TIPS2-a and DTD datasets. Evaluated early fusion and late fusion strategies, with a special focus on fuzzy integral-based decision-level fusion.

Market Vision (developed in python using libraries (pandas, scikit-learn, pytorch, streamlit, yfinance, etc))
- Streamlit based application that performs analysis and forecasting on NIFTY 50 stock data using deep learning models like LSTM and BiLSTM**.** Used yfinance for fetching real-time data.
- The app supports both historical CSV uploads and live predictions with interactive visualizations.

Suicide Rate Analysis (developed in R language)
- Analysed global suicide rate from the year 1985 to 2016 based on various aspects collected from a large dataset.
- With the help of tools and packages from the R language**,** visualized the data using graphs and studied its patterns.

Captcha Crack (developed in python using libraries (numpy, cv2, keras, scikit-learn))
- A CAPTCHA recognition project in machine learning using Convolutional Neural Networks (CNN) which aims to automate the process of deciphering CAPTCHAs. The dataset consists of 9955 .png type files.
- Data Preprocessing of the CAPTCHA images was done to clean and enhance them. This involves resizing, noise reduction, and segmentation to isolate individual characters. Character segmentation is performed following that.

INDUSTRIAL WORK EXPERIENCE

Outamation Technologies Pvt. Ltd. | Student Intern (June 2024 – December 2024)
- Worked with real time US mortgage data.
- Optimized deletion operations and data ingestion in ETL pipelines, and developed a multi-page web dashboard for the mortgage data where a flask login page was integrated with dashboards made using python libraries like plotly, dash, dask with a role-based access control. The frontend was handled by html, css files and also python libraries. Used REST API for communication between frontend and backend

EXTRACURRICULARS

- Participated in CUSAT MUN 2022(Cochin University of Science and Technology, Kochi) and received verbal mention.
- Active member of GLF (Global Leaders' Forum) club in college and have been part of the organizing committee of YLGC (Young Leaders Global Conclave) MUN and TEDx.
- Part of the organizing committee for a few events in Thiran and Login, tech associated events in college.
- A volunteer in the non-governmental organization Child Rights and You (CRY).