K MUKIL JANARDHANAN

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EDUCATION

M.Sc Decision and Computing Sciences,

2023 - present

Coimbatore Institute of Technology

SKILLS

Programming Languages: Python, C, Java, R.

Developer Tools: Jupyter Notebook, MS Excel, VS Code

Soft Skills: Communication, Problem Solving, Team Collaborations, Logical Thinking

INTERESTS

Machine Learning | Software and Web Development | Database Management | Data visulization

PROJECTS

Weather Forecasting

- Technologies Used: Java, MySQL, OpenWeatherMap API, Java Swing, JSON
- Developed a Java-based application that retrieves and displays real-time and historical weather data using the OpenWeatherMap API, with secure API key handling and location management.
- Integrated MySQL for storing weather data and implemented a user-friendly interface using Java Swing for input, visualization, and analysis of weather parameters.
- Included features like customizable units, data refresh, error alerts, and scalable architecture for future enhancements such as predictive analytics and notifications.

Real Estate Market Analysis

- Technologies Used: Python, Pandas, NumPy, Scikit-learn, Statsmodels, Matplotlib, Seaborn
- Performed end-to-end analysis of house sales data using time series forecasting (SARIMA, Exponential Smoothing), stationarity checks (ADF Test), and seasonal decomposition to predict pricing trends.
- Implemented classification models including Linear Discriminant Analysis (LDA) and Logistic Regression with feature selection (ANOVA F-value) to categorize properties based on price ranges.
- Conducted dimensionality reduction (PCA), factor analysis, and clustering (K-Means, Hierarchical) to uncover patterns in housing features and buyer segments, supported by rich visualizations and interpretability techniques.

CERTIFICATES

NPTEL

Python for Data Science Cloud Computing

Swavam

Database Management System