

Katta Hari Charan

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Professional Summary

Machine Learning & Deep Learning Engineer with 2 years' experience **designing** predictive models for agriculture and real estate. **Delivered 85%** accuracy in regression tasks by integrating UAV, Sentinel, and ground data using advanced algorithms. **Expert** in feature engineering, model optimization, and data visualization to drive actionable, data-driven insights.

Experience

Project Associate, CSIR - Fourth Paradigm institute – Bengaluru, India Dec 2023 – Present

- **Developed and optimised** machine learning and deep learning models for chlorophyll estimation, achieving up to **80% prediction** accuracy.
- **Performed** in-depth Exploratory Data Analysis (EDA) on multispectral UAV imagery and in-situ chlorophyll measurements, uncovering key patterns, trends, and correlations to support accurate predictive modeling.
- Integrated UAV multispectral data with ground-based measurements to derive vegetation indices for precision agriculture applications.
- Producing data visualisations and writing research documentation to present actionable insights for crop health monitoring.

Data Scientist Intern, Aditi Software – Hyderabad, Telangana Oct 2023 – Dec 2023

- Performed data preprocessing and exploratory data analysis (EDA) on the California housing dataset to identify key factors influencing property values.
- Built and evaluated multiple regression models, achieving a **92% R^2** score on test data.
- Engineered features such as median income, housing age, and ocean proximity to optimize model accuracy and improve prediction reliability.

Projects

Stock Price Prediction Using LSTM github.com/name/repo

- Built and trained an LSTM-based deep learning model in Python to predict stock prices using historical closing data, demonstrating strong understanding of time series forecasting.
- Preprocessed data using techniques like normalization and time-step sequencing, and split datasets for training and testing to optimize model performance, Evaluated and visualized model accuracy

Synchronized Desktop Calendar github.com/name/repo

- Developed a desktop calendar with globally shared and synchronized calendars, allowing users to schedule meetings with other users
- Tools Used: C#, .NET, SQL, XML

Education

M.S. Engineering College, BE in Computer Science Aug 2019 – June 2023

Skills

Languages: Python, SQL

Data Analysis & Visualization: Pandas, NumPy, Matplotlib, Seaborn

Machine Learning and NLP: Scikit-Learn, XGBoost, nltk, Spacy

Deep Learning Frameworks: Keras, Tensorflow, Pytorch

Development & Collaboration Tools: Jupyter Notebook, Git, GitHub, Visual Studio Code, Google Colab