NARESH EDAGOTTI | DATA SCIENTIST

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Education

Master of Science in Statistics | Pondicherry University |Pondicherry| 2021 - 2023
- Proficient in statistical analysis and data presentation.
- Achieved a CGPA of **7.67.**

Bachelor of Science in Mathematics, Statistics, and Computer Science | Government City College |Hyderabad| 2018-2021
- Achieved a CGPA of **9.03.**

Work Experience

KONAM Foundation *October 2023 - Present*
Data Scientist *Nalgonda, Telangana*

- **Developed KF Write Perfect**, an NLP model using BERT and T5, to deliver grammar/vocabulary feedback to students. Achieved **90% accuracy**, improving language proficiency for **1,000+ students**.
- **Designed a bilingual AI chatbot** leveraging RAG and GPT-4, providing real-time crop management advice to **2,000+ farmers** and promoting sustainable agricultural practices.
- **Built and maintained 10+ interactive Power BI dashboards**, enhancing reporting efficiency by **20%** and enabling real-time program monitoring for education and agriculture initiatives.
- **Led cross-functional collaboration** with 10+ agriculture experts and education coordinators to align data-driven insights with organizational goals, driving program optimization.
- **Authored and secured RFPs** for a ₹3 crore CSR project, collaborating with stakeholders to fund regenerative agriculture efforts.
- **Preprocessed and analyzed 100+ hours of voice data** in Indic languages (Telugu, Hindi) for transcription/synthesis projects using tools like ffmpeg and demucs, ensuring high-quality outputs for dubbing workflows.
- **Validated 50+ videos** on the Hitloop Dubbing Platform, ensuring **95% accuracy** in Hindi/Malayalam transcripts.
- **Collaborated with field teams** to ensure data accuracy and completeness, analyzing datasets to generate actionable insights for operational efficiency.
- **Conducted workshops** for farmers on using data-driven tools for crop management, improving adoption rates by **15%**.

Projects

Crop Recommendation System ***Github link***
- Developed a machine learning-powered **Crop Recommendation System** to predict the most suitable crop for farmland using soil properties (NPK, pH) and climate factors (temperature, humidity, rainfall).
- Designed a user-friendly interface for farmers to input data and receive personalized recommendations, promoting data-driven decision-making and sustainable agriculture.
- **Deployed the Crop Recommendation System** using **Flask**, allowing farmers to access the model through a web application for seamless, on-demand crop suggestions based on real-time soil and climate data inputs.

Q&A Chatbot ***Github link***
- Built a **Q&A Chatbot** using open-source large language models (LLMs) like Ollama and Groq within the **LangChain** framework for efficient query handling.
- Integrated a **Retrieval-Augmented Generation (RAG)** pipeline to provide accurate and context-aware responses to user queries.
- Deployed the chatbot using **Gradio** delivering an interactive and user-friendly interface for seamless engagement.

Technical Skills

- **Programming languages:** Python, R, SQL
- **Machine Learning:** Regression, Decision Trees, Random Forest, XGBoost, SVM, PCA, CNNs, RNNs, LSTMs
- **NLP & GenAI:** BERT, Transformer Models (GPT, T5), RAG Pipelines, Hugging Face Transformers, Ollama, Groq
- **AI Agents & Frameworks:** LangChain, CrewAI, TensorFlow, PyTorch , Flask, Streamlit, Gradio
- **Data Analysis & Visualization:** Power BI, SPSS, Excel, NumPy, Pandas, Scikit-learn
- **Databases:** MySQL
- **Statistics:** Hypothesis Testing, ANOVA, Time Series Analysis, Experimental Design, Multivariate Analysis
- **Business Skills:** Data Reporting | RFP Writing | PowerPoint Presentations
- **Certifications:** SQL and Power BI (Great Learning)

Achievements/Leadership Roles

- **Achievements:** District Level **Gold Medal**, Mathematics Talent Test.
- **Lead:** Led a team to organize and execute the University-Industry Institute Interface Program (IIIP) for the Department of Statistics, engaging 200+ students and ensuring seamless industry-academia collaboration.