

## VISHNU SAI VARDHAN REDDY BASI REDDY GARI

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### OBJECTIVE

Data Scientist with 1.5+ years of professional experience and expertise in Python and machine learning, aiming to pursue a Master's in Data Science with a concentration in AI to gain knowledge on advanced AI algorithms and later work as an ML/AI Engineer.

### ACADEMIC QUALIFICATION

**Bachelors in Computer Science Engineering(Specialization in Data Science) CGPA: 8.36/10 Jul 2019-May 2023**  
Vellore Institute of Technology(VIT), Vellore, Tamil Nadu, India

### ACADEMIC PROJECTS

#### Food Recognition and Calorie Counting Using CNN [VIT, Vellore]

January 2022 – June 2022

Team Size: 3

Role: Team Lead

**Summary:** Worked in a three-member team to create an application that recognizes food images and calculates calorie content using Convolutional Neural Networks (CNN). Developed algorithms for image recognition and calorie estimation, leveraging NLP and fuzzy logic for accurate database matching. Achieved 88% accuracy in food recognition and 98% accuracy in database matching. The project later garnered interest from a fitness club for real-world usage. Tools used included Keras, TensorFlow, Python, and Streamlit for the app's interactive demonstration.

#### Dynamic Intraday Stock Price Prediction with LSTM [VIT, Vellore]

August 2021 - October 2021

**Summary:** Spearheaded an end-to-end project to predict intraday stock prices using Long Short-Term Memory (LSTM) networks. Gathered real-time data via the Yahoo API and performed comprehensive data science processes in R, from preprocessing to model training. Developed insightful visualizations using ggplot and Plotly to communicate trends and predictions effectively, achieving an error rate of just 3%.

### WORK EXPERIENCE

#### Data Scientist, Maruti Suzuki India Limited, Bangalore, India

June 2023 - Present

- Currently enhancing the digital data science project's accuracy by fine-tuning an open-source LLM model.
- Collaborating with vehicle domain teams like QA and EV to understand and build use cases.

#### Project: AI-Powered Digital Data Science Team

- Developed a system of AI agents that functioned as a digital data science team, including an AI manager, and used SQL, Python, and Spark developers to handle ETL, data analysis, and visualizations.
- Built a Streamlit web app for user interaction, using the AI system as the backend, significantly reducing data analysis request times from 10 days to 10 minutes.
- The system reduced the strain on human developers and increased overall team productivity.
- Received a quarterly performance award after demonstrating the project to the Vice President due to its transformative impact on data processing at the company.

#### Project: GenAI-based Chatbot for Automated Data Retrieval and Visualization

- Developed a GenAI-based chatbot that converted natural language requests into SQL queries, retrieved data from the database, and generated visualizations.
- Implemented a RAG (Retrieval-Augmented Generation) system to understand the database, reducing the burden on the data team and streamlining query handling.
- The system enabled the team to track user queries, providing better insights into data usage trends and helping drive collaborative business decisions.
- Achieved an accuracy rate of 97%, significantly improving the team's ability to process and analyze data.

### TECHNICAL SKILLS

- **Programming Languages:** Python, SQL, C++, Java, R.
- **Frameworks & Libraries:** Streamlit, RAG (Retrieval-Augmented Generation), Pandas.
- **AI & Machine Learning:** Azure OpenAI, Generative AI, PyTorch, Scikit-Learn, NLP.
- **Data Engineering:** ETL, Data Analysis, Data Visualization(matplotlib, plotly, ggplot).
- **Cloud Platforms:** Microsoft Azure, IBM data pack, AWS Sagemaker & Bedrock, Databricks.
- **Tools & Technologies:** Agency Swarm, SQL Server, Power BI (for visualizations).
- **Collaboration & Deployment:** Git, Docker, CI/CD, Streamlit web applications.

## **INTERNSHIPS**

**Data Science Intern, Maruti Suzuki India Limited, Bangalore, India**

**January 2023 – June 2023**

### **Project: Accident Detection Using LSTM Autoencoder**

- Developed a predictive model for accident detection utilizing LSTM (Long Short-Term Memory) autoencoders to analyze sequential data and identify anomalies.
- Implemented feature engineering techniques to enhance model accuracy and efficiency, ensuring reliable detection of potential accident scenarios.
- Achieved an F1-score of 82, indicating the model's reliability and making it suitable for deployment.
- Analyzed results to identify accident hotspots, contributing valuable insights to enhance vehicle safety protocols and real-time monitoring.
- Tools & Frameworks: Python, IBM cp4d, Keras, plotly, Scikit-learn, multi-processing.

### **CERTIFICATIONS/WORKSHOPS/ADDITIONAL COURSES:.**

- Attended a two-day workshop at the AWS Bangalore office, focusing on AWS cloud platforms (SageMaker and Bedrock). - April 2024.
- Developing AI Applications for Azure Coursera - December 2021 - March 2022.
- DSA + Dynamic Programming with C++ Greek For Geeks - January 2021 - June 2021.

### **ACHIEVEMENTS/CO-CURRICULAR/EXTRACURRICULAR**

- Achieved 5 stars in both Python & SQL for consistently solving problems - HackerRank - October 2022.
- Secured third position in the Volleyball Cluster tournament, Hyderabad - 2016-17.
- Received gold medal for two consecutive years at the International Math Olympiad in school & participated at second level which was held nationwide - 2016 & 2017.
- Participated in a national basketball tournament in the year - SVIS - 2014-15.