

# BANDARU VIGNESHWAR RAO

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## SUMMARY

Computer Science and Engineering student specializing in AI & ML, skilled in Python, SQL, and data analytics. Experienced in machine learning, deep learning, and full-stack project development using Flask and FastAPI. Passionate about building scalable, real-world solutions through data-driven insights and modern tech stacks.

## SKILLS

**Programming Languages:** Python, SQL, C, Java

**Libraries :** Numpy, Pandas, Matplotlib, Seaborn, Scipy

**Web & Backend Frameworks:** SQLAlchemy, FastAPI

**Database & Cloud:**MySQL, AWS (EC2,S3,RDS), Render

**Tools & Platforms :** Git, GitHub, Jupyter Notebook, PyCharm, Power BI, Excel

## EDUCATION

**CMR Institute of Technology, Hyderabad.**

**Dec 2021-Present**

B.Tech, Computer Science & Engineering(AI & ML ) , CGPA:8.32

**Sri Chaitanya jr. College , Hyderabad.**

**June 2019 -April 2021**

Intermediate , Percentage:95%

**Manasa High School, Jagtial .**

**June 2018-April 2019**

SSC , GPA:9.8

## PROJECTS

**A/B Testing Platform for Experiment Analysis– Personal Project**

**May 2025-June 2025**

FastAPI, Python, MySQL (AWS RDS), AWS S3, Pandas, Matplotlib, Seaborn, Scipy, HTML, CSS, JavaScript

- Built a full-stack A/B Testing platform with a FastAPI backend and GitHub Pages frontend, allowing users to upload CSVs, run statistical tests (T-Test, Chi-Square), and visualize results..
- Integrated AWS S3 and RDS to manage file storage and relational data; backend extracted 20+ variants and metrics dynamically, storing and analyzing results using SQLAlchemy and Scipy.
- Deployed backend on Render and enabled real-time result visualization through backend-generated plots and statistical summaries, cutting manual analysis time by 90%.

**CalorieTrack – Final Year Academic Project**

**Jan 2025-April 2025**

Python, TensorFlow, Keras, Flask, MobileNetV2, Pandas, OpenCV

- Built a deep learning-based food recognition system using MobileNetV2, achieving 98% validation accuracy across 101 food categories with real-time calorie estimation.
- Developed a responsive Flask web app that processes user-uploaded images and displays instant nutritional information by integrating the USDA API.
- Contributed to image preprocessing, model training, and backend integration, optimizing the system for <2-second inference time and visual nutrient breakdowns.

**Cricket Analytics – Personal Project**

**Feb 2025-March 2025**

Python, BeautifulSoup, Selenium, Pandas, FastAPI, Render, HTML, CSS, JavaScript

- Developed a data-driven cricket team selector to generate India's all-time best XI across formats using custom weighted scoring, performance metrics, and dynamic role-based filters.
- Scraped player stats from ESPNcricinfo using BeautifulSoup and Selenium, followed by data cleaning, EDA, and feature engineering with Pandas for role-wise selection optimization.
- Built a FastAPI backend deployed on Render, and integrated it with a responsive HTML/CSS/JS frontend, enabling users to customize team selection based on batting depth, spinners, and pacers.

**Online Retail Sales Analysis – Personal Project**

**Dec 2024–Jan 2025**

Python, Pandas, Matplotlib, Seaborn

- Cleaned and analyzed a dataset of 500K+ rows, performed RFM and churn analysis, and visualized key metrics to support business decisions using Python, Pandas, and Matplotlib.