BANDARU VIGHNESHWAR RAO

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LinkedIn | Portfolio | Medium

SUMMARY

B.Tech CSE (AI & ML) student with hands-on experience building and deploying end-to-end ML systems using Python, Scikit-learn, FastAPI, and Pandas. Developed real-world applications including an E-commerce Intelligence Platform, House Price Prediction service, and Cricket Analytics engine focused on feature engineering, model optimization, API deployment, and real-time inference. Strong in data preprocessing, statistical analysis, and translating business needs into scalable ML solutions.

SKILLS

***ML & Data Engineering**:* Scikit-learn, Pandas, Numpy, Scipy, Feature Engineering, Model Deployment, EDA
Programming & Database: Python, SQL, MySQL
Backend & API: SQLAlchemy, FastAPI, REST API Development
Tools & Platforms: Git, GitHub, Power BI, Excel, Render

EDUCATION

CMR Institute of Technology, Hyderabad. **Dec 2021-July 2025**
B.Tech, Computer Science & Engineering (AI & ML), CGPA:8.22

Sri Chaitanya jr. College, Hyderabad. **June 2019 -April 2021**
Intermediate, Percentage:95%

PROJECTS

Dynamic E-commerce Intelligence Platform Live link | Github **Oct 2025-Nov 2025**
FastAPI, Python, Scikit-learn

- Engineered a unified ML platform integrating sales forecasting (95% R^2), churn scoring, sentiment classification (94%/89% precision), and product recommendations, using feature engineering, sparse matrices, and model optimization for real-world e-commerce workflows.
- Architected a FastAPI-based inference system with modular endpoints for each ML module, enabling real-time predictions with millisecond latency through CSR-based cosine similarity KNN retrieval.
- Delivered a fully interactive dashboard using HTML/CSS/JavaScript, allowing users to generate instant predictions across all modules, powered by versioned ML models and API-based live inference.

Bangalore House Price Prediction System – Live link | *Github* | Blog **July 2025**
FastAPI, Python, Scikit-learn, Pandas, NumPy

- Developed an end-to-end ML system achieving 84% R^2 using location-based feature engineering, outlier removal, and rigorous preprocessing of 1,300+ real estate datapoints from the Kaggle dataset.
- Implemented production-ready deployment through FastAPI, creating REST APIs that serve real-time house price predictions with serialized model artifacts (model.pkl, columns.json).
- Deployed an interactive client-facing web app using JavaScript and GitHub Pages, enabling users to dynamically input features like BHK, area, location, and bathrooms with zero-cost cloud hosting.

Cricket Analytics– Live link | Github **Feb 2025-March 2025**
Python, BeautifulSoup, Selenium, Pandas, FastAPI

- *Built a data-driven cricket team selection engine using custom weighted scoring, role-based filters, and performance metrics to generate India's all-time best XI across formats.*
- *Scraped and cleaned large-scale player statistics from ESPNcricinfo using Selenium and BeautifulSoup, followed by EDA, feature engineering, and metric-based ranking using Pandas.*
- *Deployed a FastAPI backend with an integrated HTML/CSS/JS frontend, enabling users to customize team selection through batting depth, spinner/pacer preference, and dynamic role-wise filtering.*