Deepak Battula

deepakbattula@outlook.com |deepakbattula9160@gmail.com

www.linkedin.com/in/deepakbattula | https://github.com/deepakachyutha |
https://orcid.org/0009-0004-3962-5224

Website

https://new-portfolio-virid-iota.vercel.app/

Education

G Pullaiah College of Engineering and Technology
Bachelor of Technology – Computer Science Engineering - Artificial Intelligence (CAI) | September 2023 – May 2027
Grade: 6.9 CGPA

Narayana Junior College
MPC (Mathematics, Physics and Chemistry) | June 2021 - March 2023
Grade: 76%

Good Shephered (EM) High School
School | June 2020 - April 2021
Grade: 596 marks.

Skills

Programming Language: Python, C Language, Java
Top Skills: Data Science, Data Analysis, Artificial Intelligence (AI), Machine Learning (ML)
Tools: Pandas, Numpy, Matplotlib, Seaborn, Scikit-Learn, Git and GitHub

Projects

Car Body Type Crash Analysis | (July 2025 -) | (in progress) | A data science project analyzes fatality data from the U.S. National Highway Traffic Safety Administration (NHTSA) to investigate the hypothesis that modern Crossover Utility Vehicles (CUVs) and hybrid body type cars are disproportionately involved in fatal accidents compared to traditional passenger cars like sedans and coupes.
GitHub Link: https://github.com/deepakachyutha/bodytypecrashes

IBM HR Analytics Employees Attrition & Performance| (July 2025) | A data science project that predicts employee attrition using real-world HR data.

- Developed an end-to-end machine learning pipeline to predict employee attrition, achieving **~87% accuracy** with a Random Forest Classifier.
- Engineered a solution for significant class imbalance in the dataset by implementing **SMOTE** (Synthetic Minority Over-sampling Technique) to improve model performance on the minority class.
- Integrated Explainable AI (XAI) techniques by analyzing **SHAP values** and **Permutation Importance** to provide transparent, interpretable insights into the key drivers of attrition.

- Evaluated model performance using a **Precision-Recall Curve**, a more robust metric for imbalanced classification tasks.

GitHub Link: https://github.com/deepakachyutha/IBMEmployees-ML

Titanic Survival Prediction| (June 2025) | This Titanic Survival Prediction project applies Supervised Machine Learning to predict passenger survival from the Titanic dataset

- Conducted a comprehensive Exploratory Data Analysis (EDA) using Matplotlib and Seaborn to identify key correlations between passenger attributes and survival rates.
- Executed a comparative analysis of three different classification models (KNN, Decision Tree, Random Forest) to determine the most effective algorithm for the dataset.
- Achieved an 81% accuracy in predicting passenger survival on unseen data using a tuned Random Forest model.

GitHub Link: https://github.com/deepakachyutha/Titanic-ML

Languages

English, Telugu, Hindi

Extracurricular Activities

National Cadet Corps (NCC): B certificate Holder, Army Wing.