

MANOJ MANOHARAN

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TECHNICAL SKILLS

Languages: Python, R

Databases: MySQL, PostgreSQL

Libraries: NumPy, Pandas, Matplotlib, Seaborn, Scipy, Vega-Altair, Plotly, Bokeh, Plotnine, dplyr, tidyr, ggplot2 Scikit-Learn, NLTK

Data Science: Machine Learning, Natural Language Processing (nlp), Microsoft Excel

Data Visualization: PowerBI, Tableau

Others: Selenium, HTML, Scrapy, Streamlit, Flask

WORK EXPERIENCE

Caterpillar Inc

Associate Design Engineer

Chennai, India

Jan 2022 - March 2023

- Executed modeling and detailing tasks for Engine components, ensuring adherence to project requirements and standards.
- Participated in project meetings, provided regular updates to Project Lead, and managed queries related to tasks.
- Contributed to cost reduction initiatives, utilized PLM (Teamcenter) knowledge, and maintained project tracking.

Delphi-Tvs

Junior Engineer

Chennai, India

Aug 2020 - Nov 2021

- Conducted quality inspections on manufactured components using precision measuring tools, ensuring compliance with specifications and standards.
- Assisted in developing and implementing quality control procedures to maintain product quality and reliability.
- Collaborated with cross-functional teams to analyze root causes of quality issues and implement corrective actions for continuous improvement.

PROJECTS

Credit Card Fraud Detection(Cross Validation Best Practices: Avoid Data Leakage). [Link](#)

- Implemented advanced data sampling techniques, including Near Miss UnderSampling and SMOTE OverSampling to address class imbalance.
- Employed rigorous cross-validation methods to ensure robust model training and evaluation, utilizing key performance metrics such as accuracy, precision, recall, F1 score, and AUC-ROC
- Achieved significant improvements in model performance across various algorithms, highlighting the importance of proper data handling and validation strategies in predictive modeling for fraud detection.

Laptop Price Predictor(Advanced-Feature-Engineering). [Link](#)

- Conducted a comprehensive analysis of laptop specifications and pricing data, involving meticulous data cleaning, feature engineering and exploratory data analysis to identify key factors influencing laptop prices.
- Developed robust predictive models using advanced algorithms such as Random Forest and XGBoost, with hyperparameter optimization via OPTUNA, and evaluated model performance based on various metrics

EDA on Video Game Sales 🎮 Using Vega-Altair. [Link](#)

- Utilized Python programming language along with data visualization libraries like Altair and Pandas to conduct a comprehensive analysis of video game sales data.
- Examined sales performance across various regions, platforms, publishers, and genres to identify trends and top-selling titles within the video game industry.

EDUCATION

Bharath Institute of Higher Education & Research

Bachelor of Technology in Mechanical Engineering

Chennai, India

Aug 2016 - May2020

- CGPA 7.8