Swayam Burde

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EDUCATION

VIT Bhopal University   BHopal, India
B.Tech in CSE(Specialization in AI-ML)   *Aug 2023 – Jun 2027*

Mount Litera Zee School   Nagpur, India
Senior Secondary Education (CBSE, CLass XI-XII)   *Apr 2020 – Mar 2022*

TECHNICAL SKILLS

Programming Languages: Python, C++, JAVA, SQL

Deep Learning Frameworks: TensorFlow, PyTorch, Keras

Libraries & Tools: NumPy, Pandas, Scikit-learn, OpenCV, Git

Coursework: Data Structures and Algorithm, OOPS, Operating System, DBMS, Computer Networks, Machine Learning

PROJECTS

Student Performance Predictor   Jul 2025
Machine Learning Project   *Python, Pandas, Scikit-learn, Flask*
- Spearheaded an end-to-end machine learning project to predict student academic performance using demographic, behavioral, and academic history data with comprehensive exploratory data analysis and feature engineering.
- Performed extensive data preprocessing, statistical correlation analysis, and missing value treatment on educational datasets, implementing feature selection techniques to optimize model performance and prediction accuracy.
- Developed and benchmarked six classification algorithms (Linear Regression, Decision Trees, Random Forest, SVM, XGBoost, Gradient Boost), utilizing cross-validation and performance metrics including RMSE, R^2, and accuracy scores for model evaluation.
- Analyzed feature importance rankings to identify key predictors of academic success, providing actionable insights into factors influencing student performance for educational stakeholders and administrators.
- Engineered a Flask-based web application with interactive user interface for real-time academic performance predictions, successfully deploying the complete system for live user input and instant forecasting capabilities.

Real Estate Price Predictor   Aug 2025 – Sep 2025
Machine Learning Project   *Python, Pandas, Scikit-learn, Flask, Render*
- Built a comprehensive machine learning solution for real estate price prediction in Ames, Iowa, leveraging historical housing data and property characteristics to deliver accurate valuation estimates through advanced regression modeling techniques.
- Executed thorough data preprocessing and exploratory analysis on real estate datasets, applying feature transformation techniques and statistical analysis to enhance data quality and model reliability for property valuation applications.
- Constructed and evaluated multiple regression algorithms using scikit-learn framework, implementing model validation strategies and performance assessment metrics to ensure optimal prediction accuracy and robust model selection.
- Designed an interactive Flask web application featuring a 7-step property input form with responsive Tailwind CSS interface, enabling seamless user experience for real-time housing price estimation and market analysis capabilities.
- Deployed production-ready application on Render platform with automated CI/CD workflows, establishing modular codebase architecture with comprehensive error handling and logging infrastructure for scalable cloud-based prediction services.