Dev S Panchal

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LinkedIn | Github | Certifications

EDUCATION

LJ University **July 2023 - August 2027**

Degree: B.Eng in Artificial Intelligence and Data Science

PROJECTS

PredictGrad – Academic Risk Detection with ML
Forecasted Semester 3 marks and flagged at-risk students via percentile drop analysis.
Built subject-wise regression models (Voting: Ridge, Lasso, ElasticNet) on Semester 1–2 data and a classification pipeline (Stacking: CatBoost, BalancedBagging, ExtraTrees) to detect ≥10 point drops.
Achieved MAE 5.16–7.10 (subject-wise) and F1-score 0.51.
Added SHAP-based explanations with a risk dashboard.
Tech: Python, Scikit-learn, CatBoost, LightGBM, SHAP, Streamlit.

Attendance for Impact – Subject-wise Attendance & Performance Analyzer
Developed a tool to analyze correlations between subject-wise attendance and marks (theory + practical).
Explains why performance patterns emerge using skewness, standard deviation, IQR, and mean-median gaps.
Suggests actionable improvements based on data-driven analysis per subject.
Includes visual aids like histograms, correlation heatmaps, and distribution plots for marks and attendance.
Concludes with an overall academic insight dashboard across all subjects. Tech:
Python, Pandas, NumPy, Matplotlib, Seaborn, Streamlit.

Plantify – Plant E-Commerce (Vite + React)
Built a full-stack plant e-commerce platform with role-specific workflows (users shop; admins manage catalog and orders).
Added JWT-based authentication, email password reset, and persistent carts.
Designed responsive UI in React + Tailwind with product pages, search filters, and cart features. Integrated Nodemailer for emails, Bcrypt for security, and MongoDB/Mongoose for data models.
Exposed REST APIs in Express for products, carts, orders, and profiles.
Tech: React (Vite), Tailwind CSS, Node.js, Express.js, MongoDB (Mongoose), JWT, Bcrypt, Nodemailer

CERTIFICATIONS, SKILLS & INTERESTS

- **Certifications:** Stanford: Supervised Machine Learning: Regression and Classification, Exploratory Data Analysis for Machine Learning, IBM: Databases and SQL for Data Science with Python.
- **Technologies:** Python; Scikit-learn; TensorFlow; Streamlit; PostGreSQL; MySQL.
- **Skills:** Machine Learning; Deep Learning; SQL; Data Analysis; Statistical Analysis.