Devansh Parmar

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EDUCATION

Indian Institute of Technology, Madras BSc in Data Science and Programming **2025**
- **Relevant Coursework:** Applied Statistics & Machine Learning, Deep Learning, Data Visualisation using python, Web Dev, DBMS + SQL

DPG ITM, Gurugram
B.Tech in Computer Science with a specialisation in Data Science **2024**

EXPERIENCE

Business Data Analyst (Capstone Client Project) — IIT Madras, [Report](#)

Analyzed sales, SKU trends, and customer behavior for an organic foods retail business.

- Used clustering to identify **underperforming SKUs**, enabling data-driven product line optimization.
- Applied Market Basket Analysis (Apriori) to uncover cross-selling opportunities.
- Conducted seasonality analysis → identified monsoon-driven demand drop; recommended alternate delivery channels.

Business/Data Analyst — 2ByteCode

Consulted for a growing edtech startup (Flutter Academy) to analyze user behavior and reduce churn.

- Analyzed **user engagement, screen flows, retention & churn** using Python.
- Identified high-drop-off screens; recommended ad reductions & UI flow improvements → increased retention and engagement.

AI/ML Engineer - EnView: AI-Powered News Analysis & Aggregation App

Ideated and built an AI pipeline that scrapes & analyzes **5000+ news articles per day** to group, extract & present narrative differences and biases in new coverage of different sources.

- Developed articles clustering using TF-IDF + HDBSCAN.
- Applied LLMs + prompt engineering to generate contrasting Q&A-style summaries.

ACHIEVEMENTS (KAGGLE & DATA DRIVEN)

Dengue Case Predictions in South America: Top **3.5% globally** using XGBoost + feature engineering. ([notebook](#))
Store Sales - Time Series Forecasting: Ranked **83/722 (Top 12%)** using statistical time-series modeling. ([notebook](#))
Student DropOut Predictions: Achieved **F1-major 0.76** via PCA + oversampling + GBM. ([notebook](#))
Optiver - Trading at the Close: Built LGBM + Optuna-tuned model for close-price prediction (Rank: 2038/4436). ([notebook](#))

PROJECTS

Simulation of English Premier League using ML *([github](#))*
Successfully predicted 1st place, 2nd place and 4th place position after simulating a total of 380 football matches by building an AdaBoost-based scoreline predictor trained on 4 years of feature engineered match & player data.

Smart Home Automation— Computer Vision project for real-time intruders and fire alerts on mobile app *([github](#))*
Built a real-time intruder & fire detection system using YOLO, face recognition & custom fire detection models.
Integrated Python backend + Flask APIs with a Flutter app for instant mobile alerts.

HR Analytics Dashboard (Power BI) ([Report](#))
Designed a multi-page Power BI dashboard to analyze attrition, employee demographics, leave balance trends & department-level KPIs using DAX measures. Delivered insights on churn drivers & workforce patterns to guide HR strategy and resource planning.

SKILLS

Programming Languages & Development
Python, SQL, Java, JavaScript, HTML/CSS, Flask, Vue.js, Git, Web Scraping, Celery, Webhooks
Data Science, Machine Learning, Deep Learning:
NumPy, Pandas, Scikit-learn, Time Series Analysis, Feature Engineering, Regression & Classification, Hypothesis Testing, NLP, LLMs, Hugging Face Transformers, Gemini API, Computer Vision, YOLO/Object Detection, Face Recognition
Analytics & Tools:
Power BI, Excel, Data Visualization (matplotlib, Seaborn), REST APIs, Model Deployment, Data Cleaning & EDA