Shail K Patel

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Summary

Aspiring Machine Learning Engineer with experience building end-to-end ML solutions. Skilled in Python, PyTorch, and Scikit-learn, with projects in academic risk detection, computer vision, and explainable AI. Seeking an internship at a startup or innovative company where I can apply data science and machine learning to solve real business problems and support decision-making.

Education

LJ University *July 2023 – Present*
B.Eng in Artificial Intelligence and Machine Learning

- **Coursework:** Python, Databases, Probability & Statistics, Discrete Mathematics, Computational Theory

Experience

Machine Learning Engineer *Jan. 2025 – Jun. 2025*
GetMySpace (Parking Management Startup)

- Contributed to developing the prototype for real-time parking management using computer vision and ML.
- Built and deployed PyTorch models, reducing processing time to ∼4s with update latency of ∼0.7s.
- Designed scalable backend logic and MongoDB to manage prediction outputs, user logs, and dynamic updates.

Publications

A Two-Stage, Leakage-Aware Framework for Early Academic Risk Detection in Undergraduate Engineering Cohorts *Sep 2025*
Shail K. Patel
10.5281/zenodo.17095218

Projects

PredictGrad – Academic Risk Detection with ML *Jun 2025*
predictgrad.streamlit.app

- Built regression and classification pipelines (Voting/Stacking with Ridge, CatBoost, BalancedBagging, ExtraTrees) to forecast marks and flag at-risk students.
- Delivered SHAP-based explanations and a risk dashboard; achieved MAE 5.16–7.10 and F1-score 0.51.

Beyond The Marks – Learning Impact & Bias Detection Tool *Mar 2025*
beyondthemarks.streamlit.app

- Applied statistical + ML methods with SHAP to analyze performance, detect grading bias, and measure teacher effectiveness.
- Engineered indicators (avg. marks, attendance trends) and flagged bias when Shapley impact > 0.30.

Certifications

Stanford: Supervised Machine Learning, **IBM:** Python for Data Science, **IBM:** Databases and SQL for Data Science

Technologies

Python, Scikit-learn, TensorFlow, Keras, PyTorch, Pandas, NumPy, Streamlit, Flask, FastAPI, SciPy, Seaborn, PostgreSQL, MySQL, MongoDB, SQLite

Skills

Supervised Machine Learning, Unsupervised Machine Learning, Deep Learning, Neural Networks, SQL, NoSQL, Data Analysis, Statistical Analysis, Git, LLM