# Kirti Pratihar

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## Summary

Aspiring AI/ML engineer and current B.Tech in Computer Science student with a specialization in AI and Machine Learning. Possesses hands-on experience in developing end-to-end machine learning pipelines, building web applications with Flask, and contributing to open-source projects. Eager to apply skills in deep learning and data science to solve real-world problems.

### Technical Skills

- Programming Languages: Python, C++, Java
- Machine Learning & Data Science: Supervised Learning (Linear & Logistic Regression, Regularization, Gradient Descent), Neural Networks, TensorFlow, PyTorch, Keras, XGBoost, Scikit-learn, PySpark
- Data Analysis & Visualization: Pandas, NumPy, Matplotlib, Seaborn
- Web Technologies: HTML, CSS, Flask
- Databases: MySQL, Oracle SQL
- Tools & Platforms: Git, GitHub, Jupyter Notebook, Figma

## Work Experience

### Technical Lead, Matrix Club, VIT Bhopal University

Jan 2025 - Present

- Led all registration operations for the 'Escape the Matrix' event, ensuring a seamless experience for 50 participating teams by managing both pre-registration and on-spot sign-ups.
- Served as the primary technical point of contact for club members, managing digital communication channels and providing ongoing support.

### Technical Training, India Space Lab Winter Internship

Dec 2024 - Jan 2025

Executed advanced drone flight operations, CubeSat integration, and CanSat deployment, analyzing space technologies.

### Open Source Contributor, Hacktoberfest

Oct 2024

- Authored a significant contribution to a Python package by implementing cross-platform clipboard functionality and refactoring core modules.
- Enhanced developer workflow by designing and adding a comprehensive pull request template, earning the 3rd badge for impactful open-source development.

## **Projects**

### Credit Card Approval Prediction System

GitHub Link

- Developed a Flask web application for real-time credit card approval prediction using a Random Forest Classifier.
- Implemented an end-to-end ML pipeline (SMOTE, feature engineering), achieving 90% prediction accuracy.

### Taxi Trip Duration Prediction Analysis

GitHub Link

- Conducted comprehensive ML analysis to predict taxi trip durations based on geographic, temporal, and fare features.
- Engineered features using K-Means clustering and optimized an XGBoost model to achieve a Root Mean Squared Log Error (RMSLE) of 0.3151.

#### Breast Cancer Prediction Using ML Models

GitHub Link

- Engineered a comparative analysis pipeline for four machine learning models: Logistic Regression, Decision Tree, Random Forest, and SVM.
- Achieved flawless prediction results, with the SVM model yielding a perfect 1.00 F1-Score and 100% accuracy on the test dataset.

### Aapki Sakhi

- Developed a web platform connecting rural women with NGOs for menstrual hygiene support and donations.
- Integrated diverse feedback (video, audio, text) and deployed a fully functional website.

## Education

VIT Bhopal University, Bachelor of Technology in Computer Science with AI and Machine Learning (CGPA: 8.73) Bhopal, India — Expected 2027

Kendriya Vidyalaya Bamangachi, XII (CBSE) - 84.4%

### Achievements & Certifications

- Awarded 1st Prize at InnovMinds Expo Hackathon (Feb 2025) for a dementia support app utilizing AI classification.
- Ranked 79 in India Space Lab Internship Exam (merit-based competition).
- Served as Technical Lead, Matrix Club, and Core Member, Technical Team, Bit By Bit Club, VIT Bhopal University.
- Microsoft Certified: Azure Data Fundamentals (DP-900).
- Advanced Learning Algorithms Stanford University (May 2025).
- Introduction to TensorFlow for AI, Machine Learning, and Deep Learning DeepLearning.AI (March 2025).
- Supervised Machine Learning: Regression and Classification Stanford University (Jan 2025).