

# PRERNA SHARMA

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New Delhi

## Profile Summary

Aspiring Data Scientist with 1.6 years of experience in project management, vendor management, and issue resolution. Proficient in Python, SQL, and machine learning techniques like Supervised Learning, Unsupervised Learning, Hyperparameter Tuning, Ensemble Methods, and Model Deployment using libraries such as scikit-learn. Currently pursuing PGP in Data Science and MBA in Business Analytics with a focus on driving business decisions through AI/ML models. I envision myself contributing as a data-driven decision maker in the banking sector, specializing in credit risk modeling, fraud detection, and enhancing customer experience through predictive analytics.

## Skills

- **Programming Language:** Python (NumPy, Pandas, scikit-learn, Matplotlib, Seaborn, XGBoost), SQL
- **Machine Learning:** Supervised Learning, Unsupervised Learning, Ensemble Methods, Model Deployment
- **Data Visualization:** Tableau
- **Agile Methodology:** JIRA, Waterfall Method
- **Soft Skills:** Analytical Thinking, Attention to Detail, Business Acumen, Critical Thinking, Stakeholder Engagement

## Experience

### MarketTPlus

Feb 2022 – Aug 2023

Associate Project Manager

New Delhi, India

- **Client & Vendor Coordination:** Acted as liaison between US/UK clients and vendors by gathering project requirements, sharing feasibility, and maintaining continuous communication for project alignment. Handled over 10 client accounts and vendor relationships.
- **Survey Project Execution:** Managed 60+ online survey projects by integrating client systems with vendor platforms, ensuring accurate link recreation, tracking, and performance monitoring.

## Projects

### Customer Segmentation using Clustering – AllLife Bank

Python — Pandas — Scikit-learn — Clustering — EDA — Feature Scaling — Model Evaluation

- **EDA & Data Preparation:** Explored customer interaction trends using Pandas & Seaborn; treated missing values and scaled features for clustering.
- **Unsupervised Learning:** Implemented K-Means and Hierarchical Clustering; determined optimal clusters using Elbow Method, Silhouette Score, and Cophenetic Correlation (0.8977).
- **Cluster Profiling:** Interpreted and visualized clusters to support targeted marketing strategies and service enhancements.

### Credit Risk Analysis – Financial Institution

Python — Classification Models — EDA — Feature Engineering — Model Selection — CatBoost — Model Deployment

- **Objective:** Predicted potential credit defaulters using historical loan data (`loan.csv`) to support risk mitigation strategies in financial institutions.
- **Data Preprocessing:** Handled missing values, performed feature engineering, label and one-hot encoding, and applied scaling techniques for model readiness.
- **Model Training:** Built and evaluated multiple classification models including Logistic Regression, Random Forest, Naive Bayes, SVM, XGBoost, LightGBM, and CatBoost.
- **Results:** `CatBoostClassifier` achieved highest test accuracy (93.6%) and F1-score (93.3%) among all models; model saved as `best_model_catboost.pkl`.
- **Metrics Snapshot:** Compared models on Train/Test Accuracy and F1-score to ensure performance generalization and robustness.

## Online Courses and Certifications

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- **Google:** Project Management Certification — Learned Agile project planning, risk management, stakeholder communication, and project documentation; applied skills to manage cross-functional data science projects efficiently.
- **Adobe:** Real-Time CDP Business Practitioner Professional — Gained hands-on experience in customer segmentation, data activation to destinations, profile management, and ensuring privacy-compliant data practices on Adobe Experience Platform.
- **LearnQuest:** Scrum Master Certification — Developed a working knowledge of Scrum framework, including sprint planning, backlog grooming, and facilitating agile team collaboration in analytics projects.
- **Infosys:** Introduction to Agile Methodology — Understood core Agile concepts, iterative project execution, and applied Agile principles to improve data science workflow management.

## Education

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**The University of Texas, Austin**

Sep 2024 – Sep 2025

*Post Graduate Program in Data Science and Business Analytics*

- Coursework includes Machine Learning, Time Series Forecasting, Data Visualization, SQL, and Business Analytics. Completed capstone projects applying predictive modeling, clustering, and deployment of machine learning models.

**Maharshi Dayanand University**

Jun 2023 – Jun 2025

*Master of Business Administration, Business Analytics*

- Focused on Business Intelligence, Data Mining, Statistical Methods, and AI-driven decision-making. Applied analytics to case studies in marketing, finance, and operations to derive actionable business insights.