

## Professional Summary

- Experienced in developing, training, **Machine Learning models** for risk management, fraud detection, and credit scoring in the **Banking and Finance domain**.
- Proficient in **data preprocessing, feature engineering, and model evaluation** to ensure optimal performance and accuracy.
- Skilled in working with machine learning frameworks like **TensorFlow and Scikit-learn** and data processing tools like **Pandas, NumPy**.
- Adept at conducting **exploratory data analysis (EDA)** and utilizing statistical techniques to derive actionable insights from large datasets.
- Experienced in **monitoring, fine-tuning, and maintaining ML model** post-deployment to ensure stability and performance in real-world scenarios.

## Technical Skills

**Programming Language:** Python

**Machine Learning & AI:**

**Supervised Learning:** Regression, Classification (Logistic Regression, Decision Trees, Random Forest, XGBoost)

**Unsupervised Learning:** Clustering (K-Means, DBSCAN), Dimensionality Reduction (PCA, t-SNE)

**Deep Learning:** NLP, ANN, CNN, LSTM, RNN (using TensorFlow & Keras)

**Statistics & Data Analysis:** Hypothesis Testing, Probability, Descriptive & Inferential Statistics

**Machine Learning Framework:** TensorFlow, Scikit-learn, Keras.

**Data Visualization:** Matplotlib, Seaborn

**Version Control & Tools:** Git, Anaconda, Jupyter Notebook, Google Colab, VSCode, Postman

**Databases:** MySQL

## Project Experience

**Innovsource Pvt. Ltd**

**Client:** Bajaj Finserv, Pune

**Team:** Analytics

**ML Engineer (Dec 22 - Till Date)**

### Responsibilities:

- Clean and preprocess raw data, ensuring the handling of missing values, outliers, and inconsistencies to prepare it for model training. Engineer relevant features that enhance the performance of machine learning models
- Design, implement, and train supervised machine learning models for both classification and regression tasks. Apply machine learning algorithms such as decision trees, random forests, support vector machines (SVM), and linear models to solve complex problems.
- Enhance model efficiency, especially for large datasets and real-time applications, ensuring scalability and responsiveness. Conduct cross-validation and hyperparameter tuning to guarantee the robustness and

reliability of models.

- Fine-tune model parameters to optimize performance and reduce overfitting, ensuring generalization on new, unseen data

## Personal Projects

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### Card Propensity Classification

**Description:** Developed a machine learning model to predict the likelihood of a customer applying for a credit card based on demographic, transactional, and behavioral data. The project involved data preprocessing, feature engineering, and model selection to enhance prediction accuracy.

**Technologies Used:** Python, Scikit-learn, Pandas, Matplotlib, KNN, Logistic Regression, XGBoost, Random Forest

**GitHub Repository:** <https://github.com/yashparimal99/credit-card>

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### Student Performance Prediction

**Description:** Developed an end-to-end machine learning system to predict student performance based on various academic and demographic factors. The project follows a modular coding approach, ensuring scalability and maintainability. Exception handling and logging mechanisms were integrated for robust application performance. The Scikit-learn pipeline was used for efficient preprocessing and model training.

**Technologies Used:** Python, Scikit-learn, Pandas, NumPy, Matplotlib, Logging, Exception Handling

**GitHub Repository:** [https://github.com/yashparimal99/Machine\\_Learning\\_Project1](https://github.com/yashparimal99/Machine_Learning_Project1)

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### ChatBot with Multiple PDFs using LangChain & Gemini

**Description:** Developed an interactive chatbot that allows users to ask questions based on the content of multiple uploaded PDFs. The system utilizes LangChain, Google Gemini AI, and FAISS for intelligent document processing and efficient query retrieval.

**Technologies Used:** Python, LangChain, Google Gemini AI, FAISS, PyPDF2, Streamlit.

**GitHub Repository:** <https://github.com/yashparimal99/ChatBot>

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## Education

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### Bachelor of Engineering (Information Technology)

From SIPNA College of Engineering and Technology (Amravati University) [2017-2021]

