LOAN STATUS PREDICTION USING MACHINE LEARNING

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INTRODUCTION

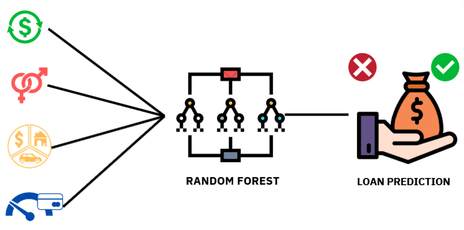
Our project uses machine learning to improve lending risk assessment for banks. With a RandomForest Classifier, we analyze borrower data such as income, gender, and loan purpose. The aim is to create a reliable model predicting loan default, ensuring a secure financial landscape.

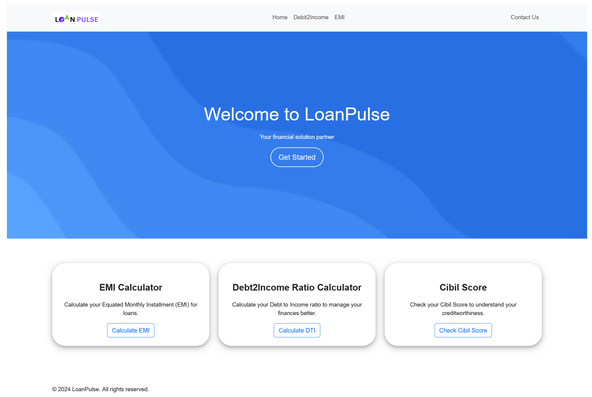
OBJECTIVES

Our project aims to enhance loan approval accuracy through advanced machine learning algorithms, enabling real-time decision-making for applicants, minimizing defaults, and ultimately strengthening financial stability.

TECHNOLOGIES USED

- Python: High-level, versatile programming language
- PyTorch: Deep Learning tensor library based on Python and Torch.
- NumPy: Python library for large arrays and matrices, with math functions. Pandas: Python library for data manipulation and analysis.
- RandomForest:Machine learning algorithm that constructs multiple decision trees to improve predictive accuracy and reduce overfitting.





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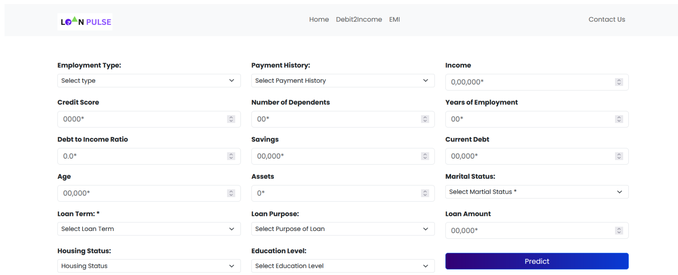

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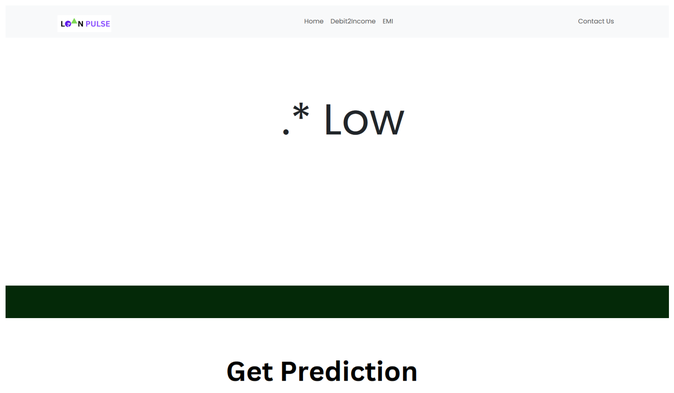

CONCLUSION

Our loan default prediction project harnesses the power of machine learning to revolutionize risk assessment in lending, enabling swift identification of potential defaults and facilitating proactive risk management practices to ensure financial stability and responsible lending.

FUTURE SCOPE

Future scope involves refining the model with alternative data sources, exploring advanced ML techniques, and developing user-friendly interfaces for seamless integration into banking operations.

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