TresVista
Catalyzing Your Impact

Machine Learning

Credit Risk Modeling Using Alternate Data

Machine Learning

Credit Risk Modeling using Alternate Data

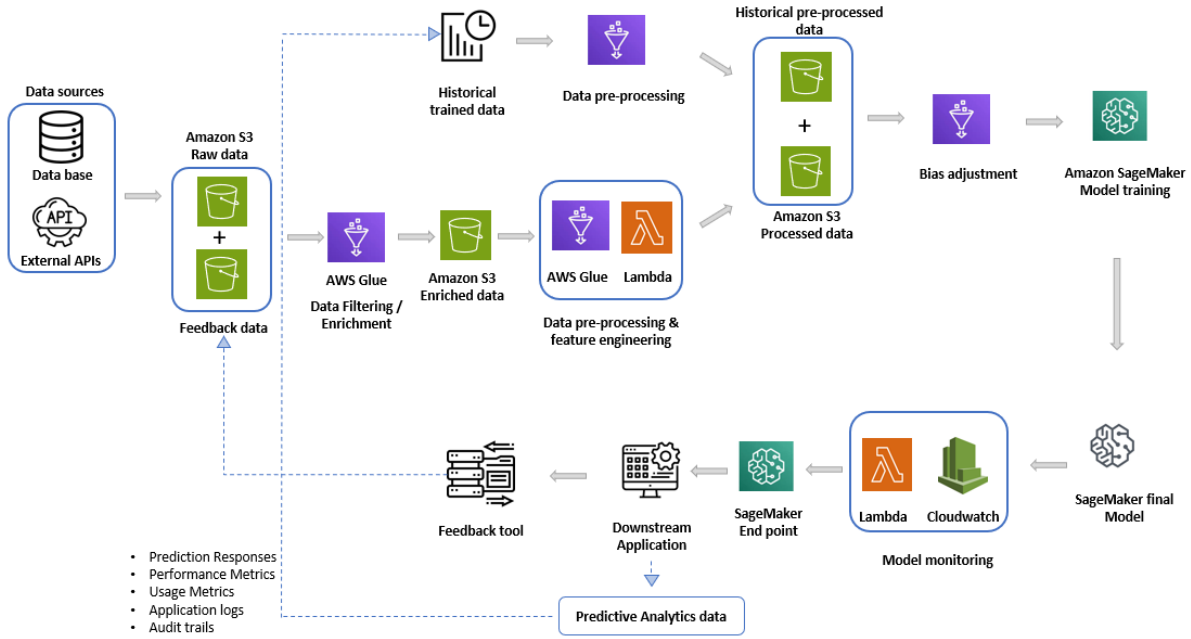
Request and Guidelines Provided

- With financial landscapes evolving, traditional models falter at predicting defaults, adhering to newer regulations, and capturing the nuances of borrower behavior. We proposed an AI-driven framework to revolutionize credit risk assessment, aiming to significantly reduce default rates and ensure comprehensive regulatory compliance
- Utilized a dual approach by integrating traditional financial histories with alternative data (e.g., online behavior, transaction patterns), enriching the predictive power of our models

Methodology and Final Deliverable

- Raw data is stored in Amazon S3 buckets which is then passed to Data filtering/ Enrichment layer along with feedback data. Utilizing AWS Glue we clean, normalize, and transform the data
- AWS Lambda functions are employed to generate new features that improve model predictive power, based on domain knowledge and data analysis insights.
- ML models are developed and trained using Amazon SageMaker. Models are evaluated rigorously using performance metrics. The chosen model is deployed as a SageMaker endpoint, allowing real-time risk assessments through API calls.
- AWS Lambda and Amazon CloudWatch is used to monitor the model's performance over time, automatically triggering re-training processes with updated data to ensure the model remains accurate as new data patterns emerge.
- Credit Risk Scoring API: A fully managed, scalable API endpoint for real-time credit risk assessments, hosted on Amazon SageMaker

Output Snapshot



Tools/Technology used: Azure,Python, Langchain framework, LLM (GPT-4)

salessupport@tresvista.com | www.tresvista.com