

Credit Risk Analysis

Function : #Operation | Industry : #Finance

Goal

- To delve deeper into customer behaviour.
- To extract valuable insights.
- To predict creditworthiness more effectively than ever before.

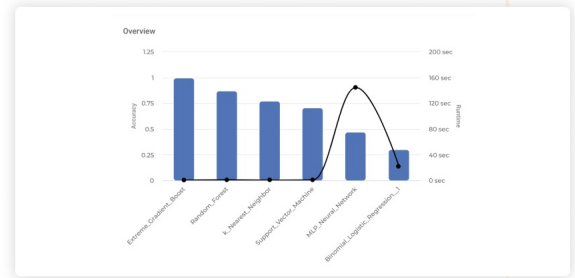
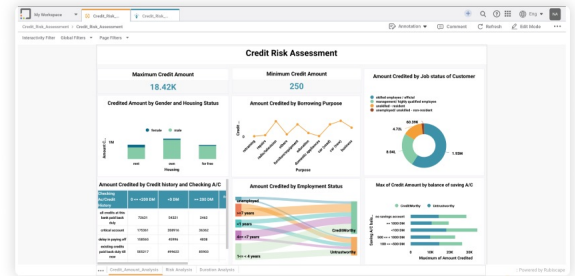
Technique

- Support Vector Machine
- Random Forest
- KNN
- MLP Neural Network
- Extreme Gradient Boosting

Impact

- Improved profitability and business growth, based on influencing qualitative factors.
- Management can craft policies that drive their business to achieve its goals.
- Identify possible threats and estimate their likely impacts.

Result



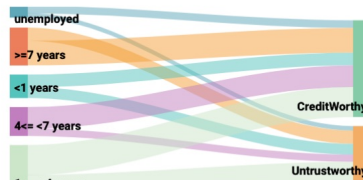
Value Points

Understand the what, why, when, where & how

Exploratory Analysis

Exploratory Data Analysis On The Preprocessed Data To Derive Meaningful Data Insights

Amount Credited by Employment Status



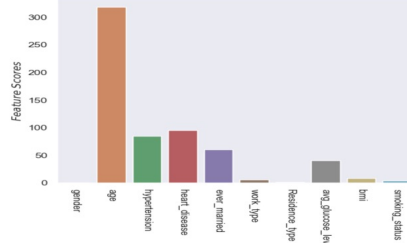
Discover patterns to summarise the data characteristics

Efficiently identifies patterns and anomalies, improves communication of complex risk information, and enhances transparency, contributing to more effective risk management.

Feature Engineering

Correlation and Covariance

- Covariance
- Pearson Correlation

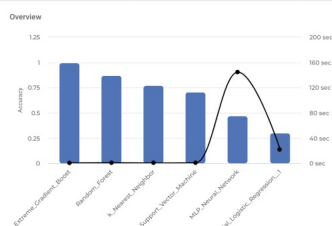


Feature engineering extract most influencing features which can be used to build a model.

Feature engineering has a direct impact on the performance and adaptability of machine learning models, contributing to better decision-making and cost savings.

Classification

	0	1	
0	241	559	
1	167	27	194
	74	532	606



Applied multiple classification algorithms and then based on accuracy metric best fit is identified

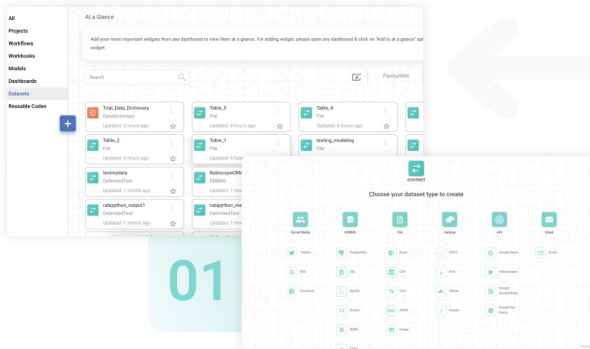
Accurate credit risk prediction enables proactive management, reducing default costs and improving financial performance for financial institutions.

Multi Persona DSML Platform

For all your data needs- Data Engineering, Data Science, Data Visualisation, IoT



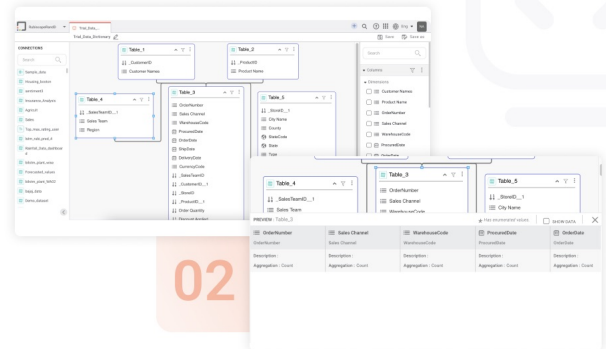
Data Connect



01

Data Source: Credit Risk Analysis

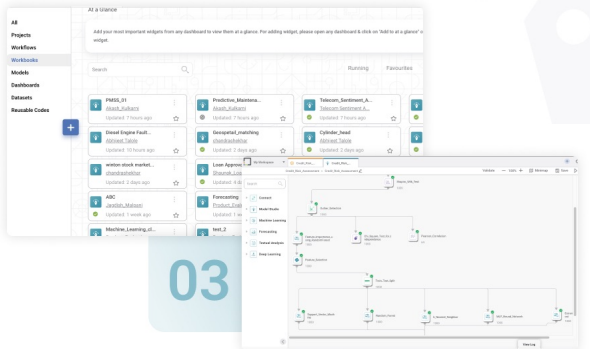
Metadata Manger



02

Comprehensive Data Operations, encompassing Metadata Management

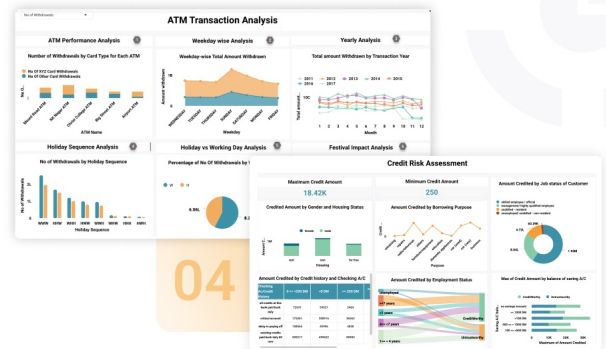
Model Studio



03

Modelling, encompassing the selection and configuration of models

Visualisation



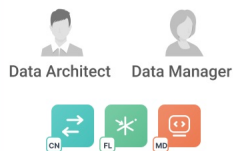
04

Viz Ops, Illustrating The Core Trends And Graphical Representations

Agile Data Science

Encapsulating best practices, tools and methods

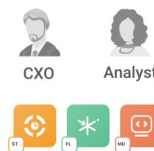
Data Ops



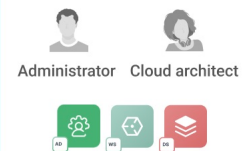
ML Ops



Viz Ops



Tech Ops



Ideate

- What is the goal?
- How can you leverage the data?
- What do you want to predict?

Acquire

- How is data sampled?
- Which data is relevant?
- Any data privacy issue?

Explore

- Plot the data
- Are there anomalies?
- Are there patterns?

Model

- Build a model
- Fit the model
- Validate the model

Present

- What did we learn?
- Do the results make sense?
- Can we tell a story?

Deploy

- Where to Deploy?
- What is the Structure of Pipeline?
- How to Optimise and Scale?