Case Study

Standard Chartered Bank uses Frugal Machine Learning capabilities to detect fraud and manage risks

How a global bank scaled their ML capabilities
Powering enterprise decisions & actions using Frugal Machine Learning

60% reduction in processing time  30% reduction in errors  3x improvement in end-to-end ML lifecycle  4x improvement in efficiency

20% improvement in response time  30% increase in team productivity

Background

Our client, Standard Chartered Bank (SCB), wanted to invest in robust fraud detection systems to mitigate the risks posed by fraudulent activities. Unfortunately, the major roadblocks involving multiple ML models, repetitive and duplicate tasks, and heavy dependence on manual interventions by their data science teams led to significant operational inefficiencies.

Before our intervention, SCB was struggling on two fronts:

- **Model monitoring**: The client had implemented approximately 3000 ML models for fraud and risk management. More than 350 data scientists were working on developing and testing different models. This resulted in model validators working independently, each maintaining their own scripts and results on their personal computers. This led to a lack of standardization and automation, despite being a repetitive task.

- **Model execution**: Statistical models were used to check credit worthiness of a customer. These models were country-specific and written in different languages. The models were run manually and on-demand, resulting in a long turnaround time with no online service for real-time creditworthiness scores.

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What the client needed

SCB needed a mechanism to:

- Monitor the models and the scripts at a central place for detecting risk, regulatory reporting, and other processes.
- Reduce the turnaround for manual model run time.
- Improve governance and increase automation.

How Refract helped

- Refract automated model monitoring processes and consolidated all model monitoring scripts into a single platform, reducing the dependency on manual execution and improving the efficiency.
- Refract’s integration with Bitbucket helped centralize code versions.
- Report scheduler ensured that all reporting jobs were executed on time and the model execution results were shared with regulators to comply with regulatory requirements.
- Refract’s “Model-as-a-Service” feature was used to deploy all country models as a 24x7 service, for real-time creditworthiness evaluation.
- The models’ scripts were written in different languages, but the credit score feature, that has a single-entry point, routed requests to the corresponding country model based on risk.
- Refract fully automated the process, enabling real-time credit score results, and significantly reducing the turnaround time.
Refract, our Frugal ML platform, provided the client a cost-effective and efficient solution for implementing ML. Refract enabled IT transformation through the adoption of AI-led IT operations. Its modern data logistics platform harnesses valuable data to generate actionable insights, which can facilitate business transformation and enhance the quality and speed of decision making.

Business impact

Refract enabled SCB to scale their ML initiatives across regions and boundaries. Refract’s ML-powered platform enabled them to increase efficiency, improve risk management & enhance compliance. Refract helped the client drive growth, increase efficiency, and provide enhanced customer service.

The Fosfor Product Suite is the only end-to-end suite for optimizing all aspects of the data-to-decisions lifecycle. Fosfor helps you make better decisions, ensuring you have the right data in more hands in the fastest time possible. The Fosfor Product Suite is made up of Spectra, a comprehensive DataOps product; Refract, a Data Science and MLOps product; and Lumin, an augmented analytics product. Taken together, the Fosfor suite helps businesses discover the hidden value in their data. The Fosfor Data Products Unit is part of LTIMindtree, a global technology consulting and digital solutions company with more than 700 clients and operations in more than 30 countries. For more information, visit Fosfor.com.