



CYBORGINTELL

Empowering Predictive Business by Harnessing AI and Auto ML



Case Study:

Combating Application Fraud for a Money Remittance Company

Business Challenges: One of the leading Money Remittance Company (MRC) in US, wanted to prevent fraudulent account creations at new account registration itself.

Analytical Objective: The objective was to build a better machine learning algorithm (Challenger Model) & provide a risk-based fraud detection solution to help MRC to identify potential high-risk new account applications. The existing predictive model built by their team had 94.5% Accuracy, which they wanted to improve upon. The new model was expected to increase application fraud detection accuracy as well as reduce false positive rate (FPR).

Outcome: iTuring platform came up with solutions for sampling imbalance, data cleaning, feature optimization, built thousands of machine learning models using multiple techniques and recommended GBM as best predictive model with 97.4% accuracy (AUC), 70% precision at 97% TPR. This was way ahead of existing champion model.



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Case Study:

Improve Merchant retention for a payment bank

Business Challenges: One of the new age payment banks wanted to improve their merchant retention. Bank wanted to pre-empt their sales team of possible merchant churn in the coming month, so they could take corrective action for retaining. Also, this was to evaluate iTuring's capability in building robust ML models.

Analytical Objective: The objective was to build a machine learning predictive model to quantify merchant's probability to churn in next month. Further aim was to improve upon existing predictive model performance, in terms of area under curve (AUC).

Outcome: iTuring built a new model with 92% accuracy (AUC) compared to 80% accuracy of old model. It took just 40 minutes to achieve this and important feature list became less than half of the old one. Bank's existing process used to take one week to a model.



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Case Study:

Improving click-through-rate prediction for a digital marketing agency

Business Challenges: A leading digital marketing agency of south east Asia wanted to reduce their inventory buying cost, through improved click through rate on ad banners. This was to evaluate iTuring's capability in building robust ML models, in comparison to their existing ML modeling process.

Analytical Objective: The goal was to build CTR prediction model, whose outcome will be used for precise bidding to buy targeted inventory.
Outcome: New model built with iTuring gave 86% AUC in modeling period and 80% AUC in out-of-validation period. Earlier model had only 75% AUC in the same out-of-time validation period. Modeling data used for new model was also cut down, using only the first 10 days instead of 30 days. Number of final important features also came down to half, compared to their old model.



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Case Study:

Improve uptake on higher limit overdraft product for a large bank

Business Challenges: One of the largest South African banks wanted to increase the adoption and utilization of their overdraft product. Thus, their sales team wanted to target customers who were ready to upgrade their Overdraft with higher limit.

Analytical Objective: The goal was to build an upsell prediction model, to identify customers who are highly likely to adopt higher overdraft limit.
Outcome: Final model had 94% accuracy (AUC), with 93% buyers captured in top 3 deciles. Further, for out of time validation, it was scored on 5 months of external data which was not part of model development. Model outperformed across 5 months with ~86% area under curve (AUC) & ~73% Gini.



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Case Study:

Increase sales of overdraft protection product for a large bank

Business Challenges: One of the largest South African banks wanted to increase the adoption and utilization of their overdraft products. Second part of this goal was to improve sales of their overdraft protection product.

Analytical Objective: The goal was to build a cross-sell prediction model, to identify customers who are highly likely to buy new overdraft protection product.

Outcome: Model built using iTuring gave 87% accuracy (AUC). Using this model, bank's sales team could reach 85% of their new probable customer, with only 30% of effort. For out of time validation, it was scored on 5 months of external data which was not part of model development. Model outperformed across 5 months with ~86% area under curve (AUC).