Anomaly Detection

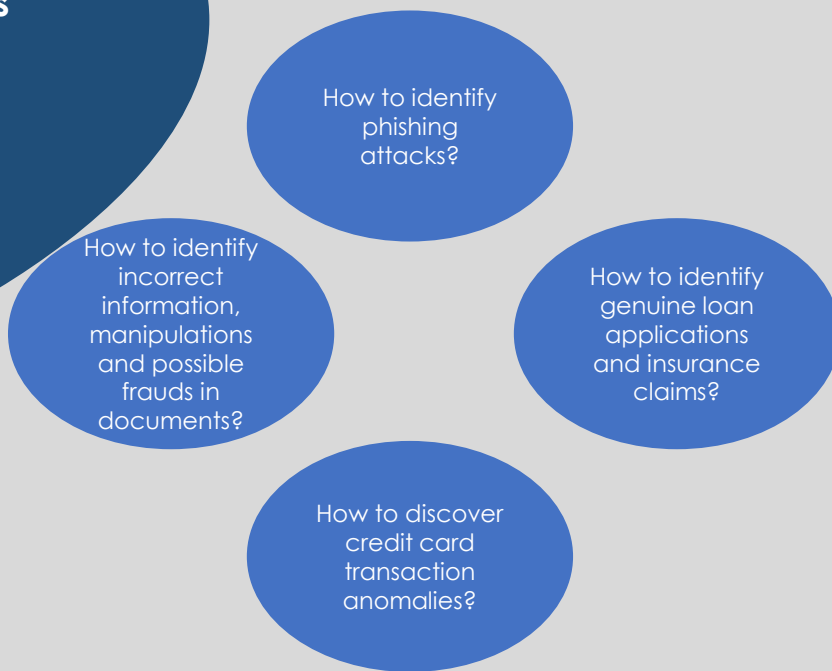**TRANSORG ANALYTICS**

In the Digital age it has become imperative to identify anomalies in business operations. From payment frauds to money laundering and cyber security, quick and accurate anomaly detection is necessary in order to conduct business and protect clients from potentially devastating losses. As per India's Reserve Bank of India's annual report 2019-20, the amount involved in banking frauds grew 2.5 times to INR 1.85 lakh crore in 2019-20 & the number of frauds rose 28% in 2019-20 compared to 2018-19.

Key business questions

TransOrg offers solutions to identify anomalies at transaction, account / customer and merchant levels using various complex modelling algorithms. Similar techniques have been deployed to detect near real time cyber attacks as well.
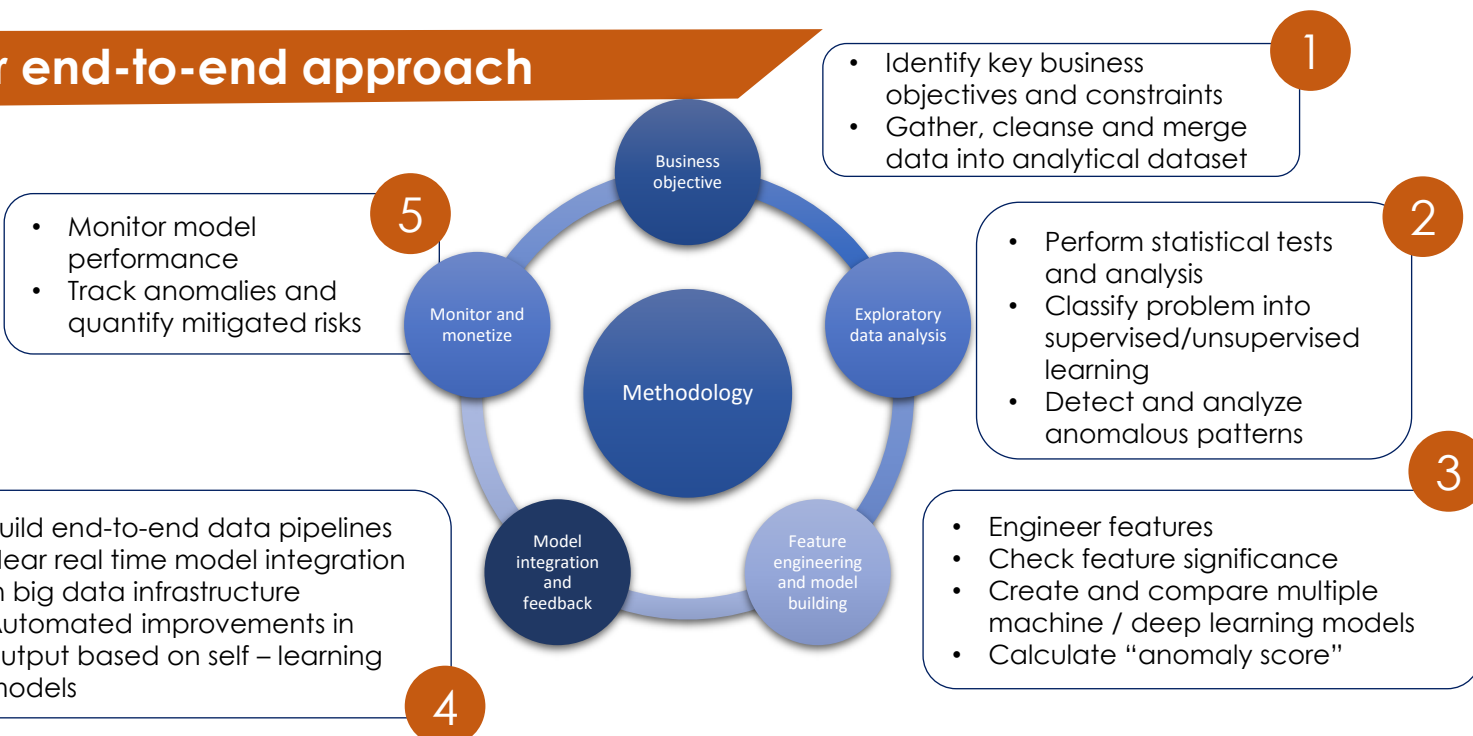
How to identify phishing attacks?

How to identify incorrect information, manipulations and possible frauds in documents?

How to identify genuine loan applications and insurance claims?

How to discover credit card transaction anomalies?

Advantages

- Mitigate reputational risk for a financial institution by flagging anomalies at transaction level
- Improve and maintain asset level portfolio quality
- Improve customer confidence by preventing phishing attacks
- Reduce losses

Our end-to-end approach

1
- Identify key business objectives and constraints
- Gather, cleanse and merge data into analytical dataset

5
- Monitor model performance
- Track anomalies and quantify mitigated risks

Methodology

- Business objective
- Exploratory data analysis
- Monitor and monetize
- Model integration and feedback
- Feature engineering and model building

2
- Perform statistical tests and analysis
- Classify problem into supervised/unsupervised learning
- Detect and analyze anomalous patterns

3
- Engineer features
- Check feature significance
- Create and compare multiple machine / deep learning models
- Calculate "anomaly score"

4
- Build end-to-end data pipelines
- Near real time model integration in big data infrastructure
- Automated improvements in output based on self – learning models

About TransOrg Analytics

TransOrg Analytics is a Big Data and machine learning solutions and services company transforming businesses. Our solutions and products encompass advanced analytics, data engineering, data science, machine learning, artificial intelligence and smart data visualization. We come with tenured experience of 11+ years across North America, Middle East, APAC and India and have delivered millions of dollars in incremental top line revenues via 300+ projects of varying complexities for 60+ clients including Fortune 500 companies.