

Data Intelligence

At Trace3, we believe all roads lead to the cloud. Everything we do aims to enable customers to grow faster and operate their businesses efficiently and securely.

Trace3 consulted with a leading organization in the Aerospace Engineering Services industry to develop and implement a strategy and architecture for Robotic Process Automation using AI/ML vs. traditional business rules. Business drivers for the client included the need to reduce labor costs, decrease time to market for existing and new products, and eliminate, to the extent possible, resources allocated to training and knowledge transfer.

The solution Trace3 delivered included creation of Deep Learning models, development of data pipelines, transformations required for model training and inference, as well as architecting the infrastructure to support model building and serving at scale. In addition, Trace3 designed the integration of ML models into the operational workflows.

THE CHALLENGE

Client needed to reduce costs associated with daily operations to create knowledge-based core products.

Client needed to speed time-to-market for existing and new products slowed by frequent business rules changes, resulting in significant rework.

Client lacked in-house expertise to develop and implement an ML-based Robotic Process Automation (RPA) strategy.

Client needed help identifying the necessary infrastructure to build and operationalize ML models at scale.

Client needed help defining the integration of ML models into operational workflows for RPA.

THE SOLUTION

Mapped process for ML automation (target outcomes, features, data transformation) and identified common ML capabilities required to automate the process.

Quantified costs of process steps, identified problems suited for ML vs. standard automation, and quantified potential reduction of costs through ML solutions.

Developed ML models for targeted use cases, created APIs to access ML models as a service, and developed implementation strategy to integrate ML models into workflows.

Architected environment for model building and model serving at scale.

Created pipeline for ML model development, including ETL pipeline for XML and SVG to JSON format, NoSQL document database (Couchbase/MongoDB), and converted NoSQL data sets into structured data for ML training.

THE BENEFITS

Estimated minimum 10% savings in FTE hours on a subset of the product creation activities.

Defined core Machine Learning-based RPA capabilities and developed roadmap for model development and operationalization to enable future growth and scale.

Created Machine Learning models as reference for future Robotics Process Automation (RPA) use cases.

Provided Machine Learning education and knowledge transfer to strengthen capabilities and to further empower development of ongoing programs.

Enabled business to grow faster and operate more efficiently in a secure environment.

Please visit www.trace3.com/data-intelligence for more information and to learn how Trace3 can help you with your Data and Analytics needs.