rts Resolve Tech Solutions

Modernized Technology, Enabling Digital Transformation for Retail Organizations

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Project Overview

The largest convenience store chain in the world, with over 71,100 stores in 17 countries, partnered with RTS to help execute and implement several digital transformation focused projects with an end goal of improving customer satisfaction and enhancing competitive advantage.

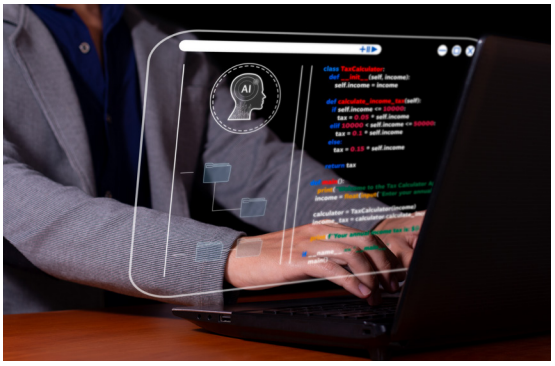
Through the use of the expert team at RTS, the retail partner was able to streamline and automate business processes to improve efficiency, reduce cost and improve the customer experience.

Data Analytics & Digital Transformation

Data analytics is becoming increasingly important for businesses. By analyzing data, businesses can gain insights into customer behavior, improve decision-making, and identify new opportunities. RTS their client partner forge a path from data ingestion to data visualization and advanced their business operations by enabling AI and creating new business opportunities with IoT to collect data, improve operations, and identify new products and services for their retail customers.

AI/ML Based Stock Ordering

Maintaining inventory is a cumbersome yet critical task for any retail business. RTS enabled their client to build an intelligent and modernized stock ordering system would lead to better productivity and higher profits. RTS preformed the required work to create an AI solution that would give their retail client the best outcome and created a system to forecast the future product requirements of every store which can help them place the right orders. In doing this, stores globally can be appropriately stocked until the next cycle start which will help in reducing out of stock rates and over stocking.



Key areas of this project included:

- Collecting the correct input data
- Performing required data transformation
- Training the model based of the transformed data
- Creating the forecasted dataset with the prediction
- Making the prediction available to the stores via API

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Efficiencies Created

Reduced labor costs: AI/ML can automate the process of ordering inventory, which could free up human employees to focus on other tasks.

Reduced shrink: AI/ML can help retailers to better track their inventory and identify potential problems, such as overstock or understock. This can help to reduce shrinkage from theft, damage, and errors.

Improved customer experience: AI/ML can be used to personalize the shopping experience for customers, such as by recommending products that they are likely to be interested in. This can help to increase customer satisfaction and loyalty.

Improved forecasting: AI/ML can be used to improve a retailer's forecasting of demand, which can help to ensure that it has the right amount of inventory on hand. This can help to reduce costs and avoid stockouts.

Improved decision-making: AI/ML can be used to provide retailers with insights into its inventory data, which can help it to make better decisions about pricing, promotions, and other aspects of its business.

Cashier-Less Store Operations

Cashier-less stores offer convenience and speed for customers while providing customer behavior data to businesses. Our client knew that by implementing this they could reduce labor costs, improve process transaction efficiency, and collect valuable data that could enhance their marketing efforts and product lines. One of the major challenges with a cashier-less store is technology reliability. Our client knew they needed to work with a trusted and proven partner to ensure the success of this project.

RTS helped our client complete this project using an app where customers gained entry to the cashier-less store using a credit card linked to the app for purchases and receipts. During the project RTS.

- Designed, developed, and implemented novel computer vision algorithms using deep learning frameworks such as TensorFlow, keras, PyTorch, Caffe etc.
- Trained neural nets to solve problems like human pose estimation, object detection, and face recognition
- Used object contours and backgrounds to generate augmented data in python
- Pre-processed training image datasets using tools such as OpenCV, skimage etc.
- Designed and developed production ready code in python

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Why RTS

RTS along with their client partner forged a path from data ingestion to data visualization by enabling AI and creating new business opportunities with IoT. By collecting real-time data and improving inventory operations, our end client was able toidentify new products and services for their retail customers.

About RTS

Resolve Tech Solutions (RTS) is an award winning mid-sized consulting and IT services firm, headquartered in Dallas, Texas. RTS specializes in helping organizations achieve their IT modernization goals through core business system modernization and migrations, digital transformation services such as custom application modernization, data modernization, cloud-native and mobile development, and AI/ML and RPA enablement.

RTS is a leading provider in cloud migration and post-migration managed services and ensures the security, disaster recovery, and maintenance of over 5000 virtual machines for some of America's largest organizations. RTS empowers their client partners to lead technology transformation journeys by providing unparalleled service excellence and continuous investment in their people and envisions a world where digital and AI technologies drive limitless possibilities. RTS strives to accelerate our customer's technology's transition with commitment to continuous innovation and cutting-edge solutions. Together, RTS believes they can revolutionize the digital and AI landscape to make new possibilities in our world.

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