US Retail– Customer Facial Recognition

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1. The Context

The goal of the client was to provide a customized in-store experience for their customers to increase their sales revenue and customer satisfaction

- The client decided to implement a solution for in-store service personalization and gathering customer metrics.

- The goal of the project was to recognize faces of the people entering stores and add information about them into the customer database for further analysis.

- As the same people enter the store again, their faces would be recognized based on the recorded data to enhance their customer experience and personalized service.

- The sensitivity around the type of data to be used for this project was a priority for both RUBIX. and the client, great care was taken to ensure that the customers' privacy was respected, and that all data collected was within the clients' terms of agreement

2. Our Challenge

RUBIX. was engaged to provide a framework for the rapid development and deployment of machine learning models into a production pipeline. The models were then tested and ranked against each other to find the best performing combination of algorithms

- The Retail Application Development process consisted of two main stages:

    1. Face image capture

    2. Face recognition

- The team defined a rapid model deployment framework that enabled us to work with ML algorithms within the constraints of the client's environment and their customer data

- The team investigated a range of different algorithms and through using their defined model deployment process, was able to quickly train, test, and assess the performance of each of the algorithms to find the ideal solution

- It was determined that a combination of algorithms in a neural network allowed us to implement the client's requirements and build a system that produces the highest percentage of correct results

3. How we Triumphed

Working closely with the client's in-house analytics team to ensure the solution met their requirements at all stages of the development cycle, the final model was deployed to production in store, enabling the client to offer personalized offers and experiences to successfully identified clients

- On time and on budget, the Client received a solution that allowed to recognize store visitors using an innovative image recognition technology and tailor their in-store experience accordingly.

- The solution attributed to an increase of 11% annualized return patronage by customers as determined by the client.

RUBIX.