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Case Study

# Billing Automation using Face & Object Recognition





# About the Client

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The Client is a Japanese Billing Software Company



# Business Problem

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The customer wanted to automate billing in the cafeteria based on the food items in the food tray. The requirement was to detect person using face recognition and food ordered by recognizing the plate/bowl types in the food tray. There billing software was installed at a large automotive company cafeteria and the manual billing process was taking longer time for billing





# Solution

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The deep learning-based solution for object recognition (plate/bowl) was developed using Python & Tensorflow. The deep learning model was trained on training data set (different sizes of plates, bowls) provided by customer. These models were integrated with restaurant billing software of our client. Evaluated model performance on high end cpu and gpu machine on cost, speed and accuracy parameters. Achieved face recognition and object recognition speed in less than 1 second with more than 90% accuracy

# Outcome

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The Client could reduce the billing time from average 2 mins to less than 5 seconds

# Technology Used

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Python, Deep Learning, Face Recognition, OpenCV







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