



SHYENA  
TECH YARNS

A Data Science Company



## Case Study

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# Baby Diaper Size Recommendation for Consumer Goods Manufacturer

# About the Client

A Global Consumer Goods Manufacturer, specializing in Personal and Baby Care Products

## Business Problem

The client was building a mobile app for child care to promote the products. One such use case was to recommend the diaper size of the baby based on the picture uploaded by the end consumer. The client was not getting the accurate diaper size recommendations using the home grown machine learning model

## Solution

Recommending the size of the baby using the baby picture was quite a challenge. The baby, unless sleeping, is always making body movements. The end customers may upload multiple images where the baby could be in various positions. The first challenge was to detect the right image from the set of images. It was addressed using the image processing techniques. The key task was to detect the length of the baby. For that we used a A4 size paper as a reference object, as it has a standard length. By utilizing deep learning & reference object, we could approximately derive the length of the baby.

World Health Organization (WHO) has published standard baby weight based on the height of the baby. We utilized these standards to derive the weight of the baby based on the length of the baby. The client has a standard diaper sizes based on baby height & weight. Now that the baby height(length) & weight is derived, the Clients standard diaper sizes chart was used to make the final diaper recommendation. The problem was complex and we are glad that we could resolve it for the Client.

## Outcome

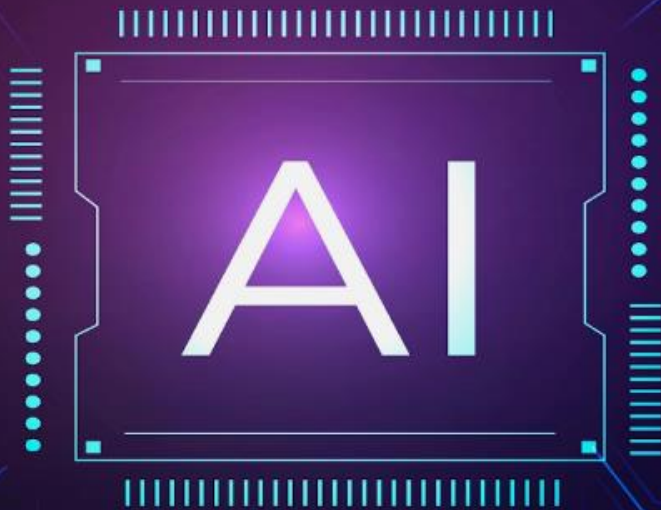
The Client got near accurate diaper size recommendation from the machine learning model which we developed. We also build APIs to integrate the model with the mobile app

## Technology Used



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## Office Locations

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