Automatic Garment Size Extraction

This project was developed at Fresh Gravity Software Services Pvt. Ltd.

The project involves developing a Computer Vision solution that can reliably estimate clothing dimensions for a large inventory of different items.

Approach

The main approach involved implementing Convolutional Neural Networks including a Fully Convolutional Neural Network using Keras and OpenCV. I also tried a couple of transfer learning based models such as VGG256. The results of this were combined with an algorithm developed using traditional computer vision using corner detection models and some concepts from computations geometry. This

I also tried a second approach involved developing a keypoint detection model using TensorFlow and computational geometry on a manually annotated data. I was also responsible for trying to fit the model using Support Vector Machine and I also tried using the AutoML tpot library.

We achieved a RMSE of 1.2 which was satisfying as per the requirement of the project.