



Deformable classifiers

13.03.2019

Soothsayers
IIIT Hyderabad

Project Id and title

Project ID : 17

Project Title : Deformable classifiers

Github link

<https://github.com/devesh-tewari/Deformable-Classfier>

Team Members

1. Devesh Tewari (2018201039)
2. Tarun Munjal(2018202007)
3. Shubham Pahuja(2018201025)
4. Sanket Tilotkar(2018202008)

Main goal of the project

The main goal of this project is to test out prediction of classifiers when the dataset is distorted , Specifically dealing with rotated MNIST dataset and evaluating the performance of classifier trained on standard MNIST and Exploring various methods that can be used to improve performance viz. dataset augmentation, adding additional layers.

Problem definition

Design a framework for training deformable classifiers, where latent transformation variables are introduced, and a transformation of the object image to a reference instantiation is computed in terms of the classifier output, separately for each class. The classifier outputs for each class, after transformation, are compared to yield the final decision.

Results of the project

Replicate the proposed model provided in the paper [Deformable Classifiers](#)

Team members and tasks for each member

Member Name	Task
Devesh Tewari	Study STN and do implementation
Tarun Munjal	Study STN and do implementation
Shubham Pahuja	Train CNN on rotated images, later work on STN
Sanket Tilotkar	Train CNN on rotated images, later work on STN

Project Milestones and expected timeline

Task	Expected Completion Time
CNN on rotated images	10 April
Complete understanding of STN	10 April
Final implementation	Project Deadline