PROJECT PROGRESS REPORT

Project Title : Deformable Classifier
By,
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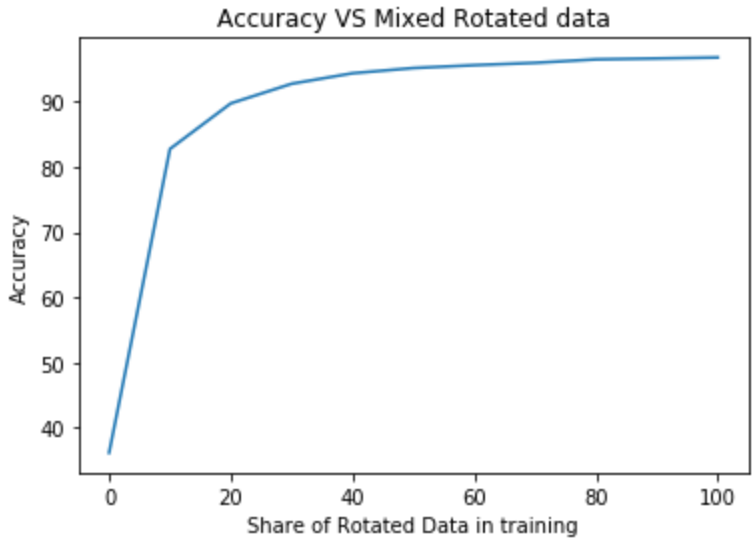
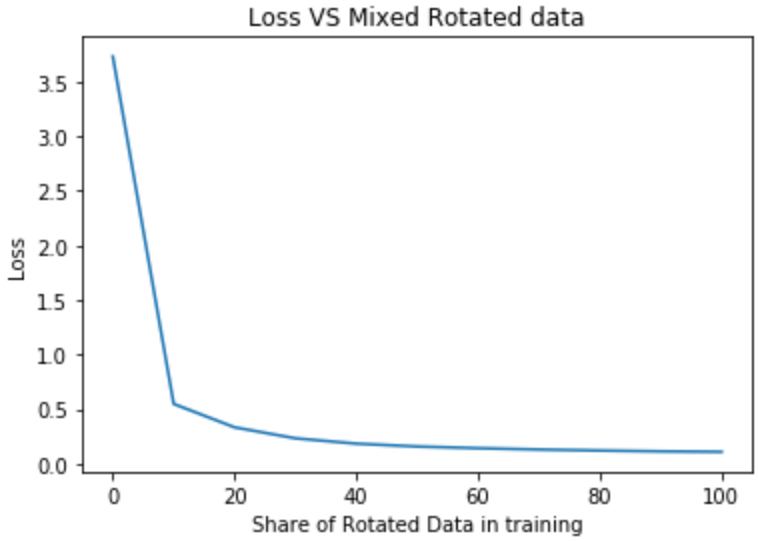
Progress :

- Completed first part of the project i.e. to train CNN on rotated data of different proportions of original and rotated images and analyse the result.
- Working on second part i.e. to understand and implement STN.

Part 1 :

- **Implementation Details :**
  - We used Keras to implement CNN.
  - We used MNIST digit data to train CNN.
  - We implemented a function to generate rotated images from original data.
  - We trained 11 different CNNs having different shares of original and rotated images i.e. we included 0% to 100% of the rotated data in the training data along with original data.
  - We used rotated data to test the trained CNNs and compute accuracy.
  - Using the computed accuracy, we generated the “accuracy vs rotated data percent curve”
- **Result :**





Part 2 :

- We read the provided paper.
- We studied STN and its implementation details.
- We will start the implementation after complete understanding of STN.