

Data Science BCS-7B

Project Phase 1

Annotation and Augmentation

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Members:

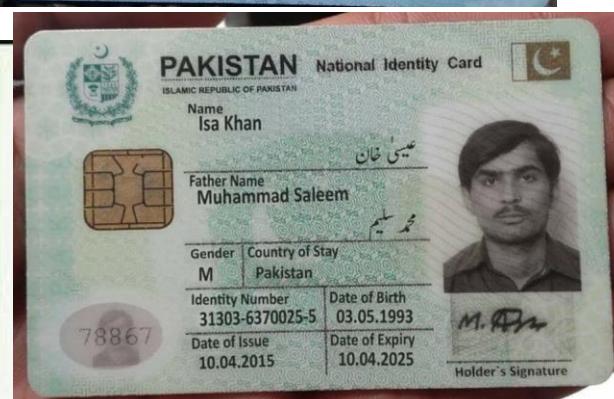
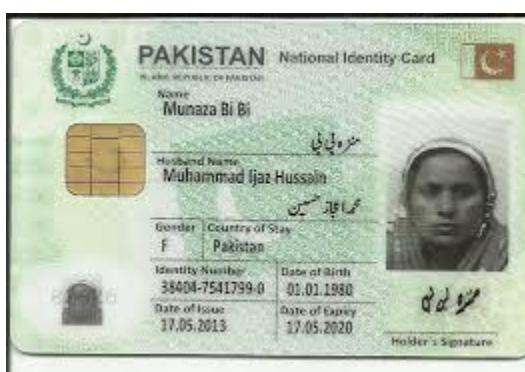
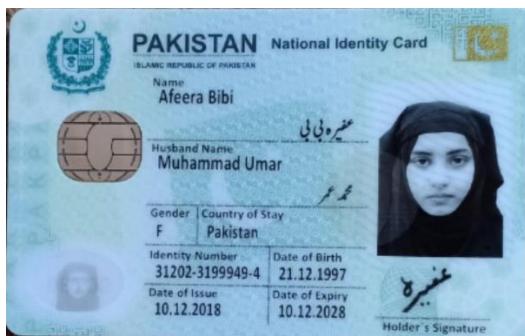
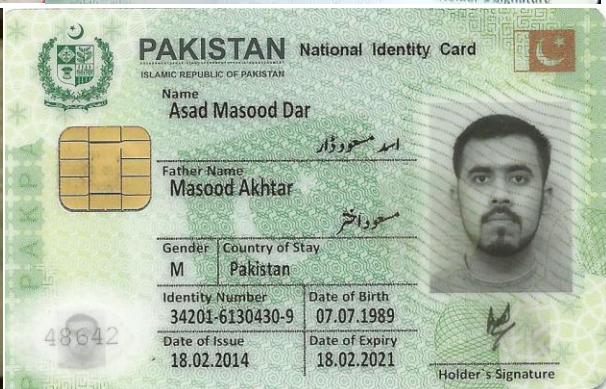
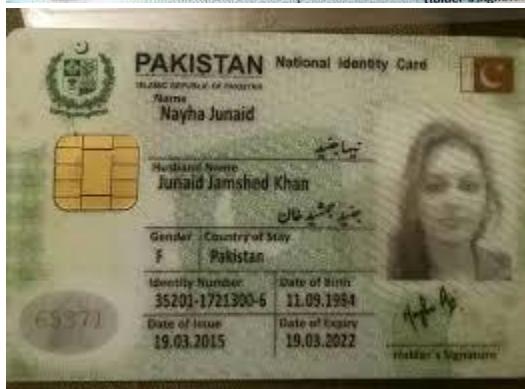
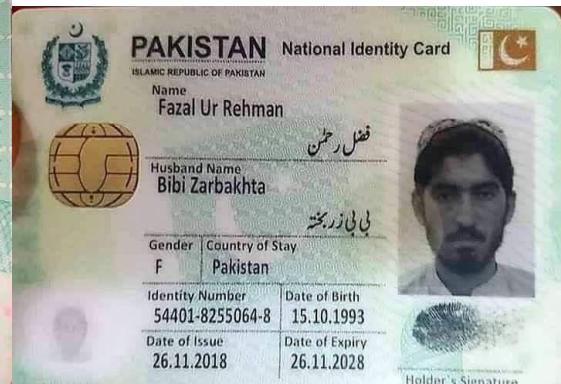
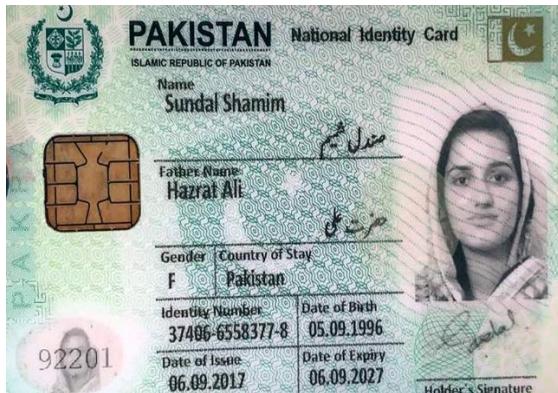
17L-4010	Uzair Ahmed Bhatti
17L-4154	Muhammad Saqib Kamran
17L-4238	Muhammad Khuram Niaz
17L-6326	Ali Haseeb

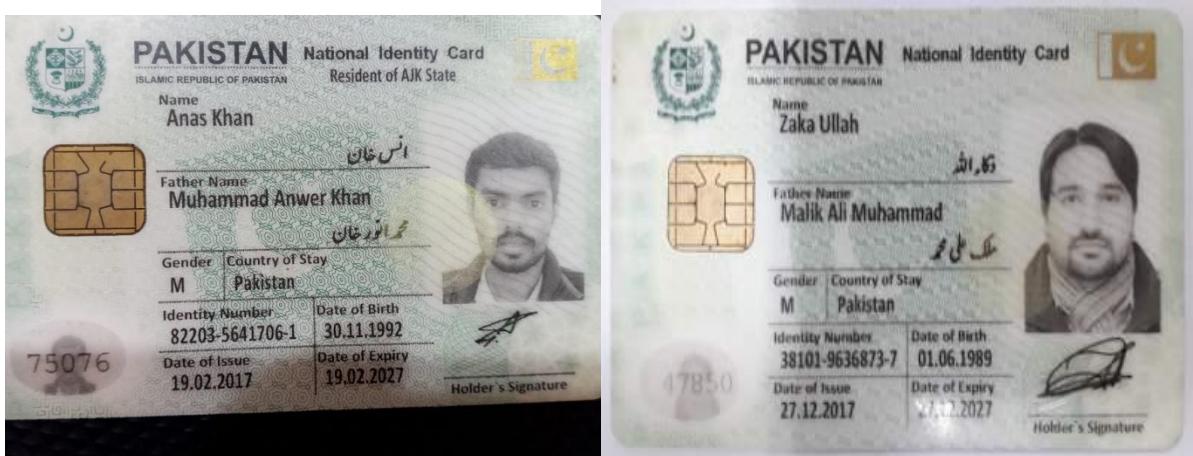
The tool we have used for annotating the images is COCO Annotator. We used Docker to run the Coco Annotator on our system. After annotations, the json files for annotations were generated. Afterwards, python code was used to apply the augmentations and the augmented images were generated along with augmented json file.

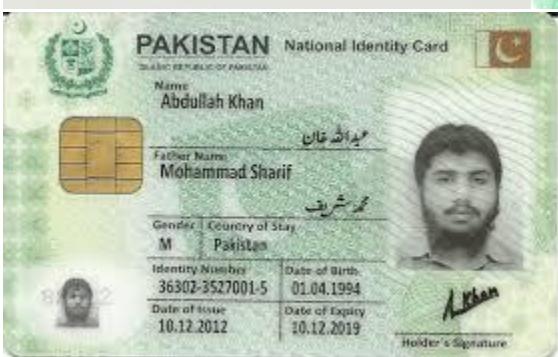
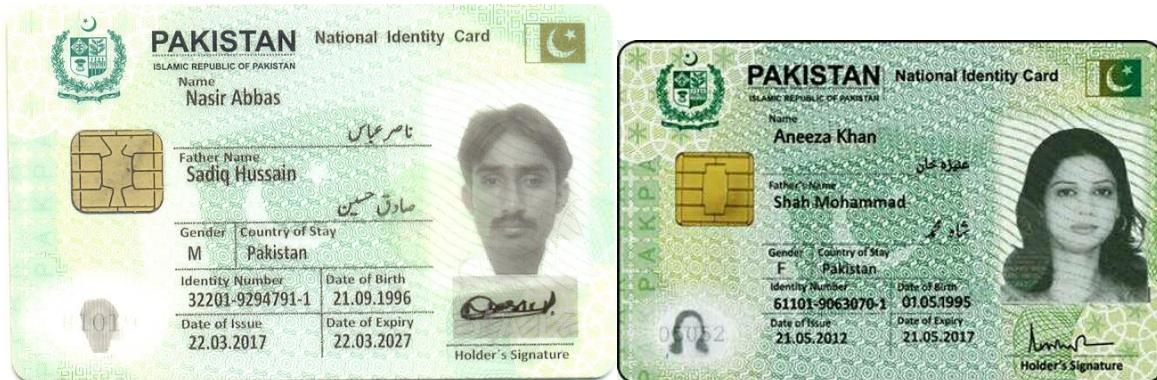
We have used two types of cards including Pakistani CNIC card and Canadian Passport and the number of images used for each card is 25.

1. Original Images for Pakistan CNIC





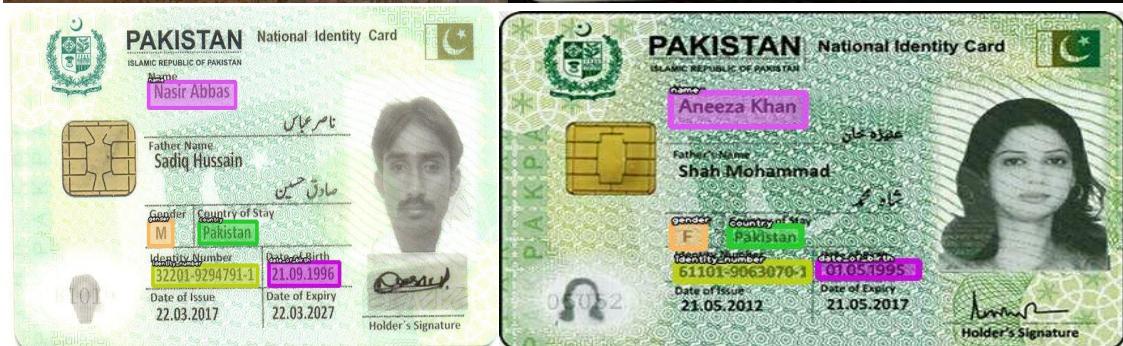


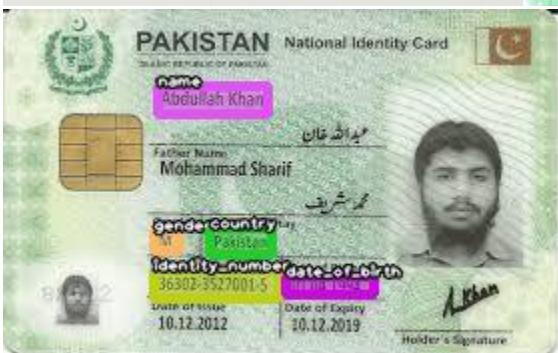
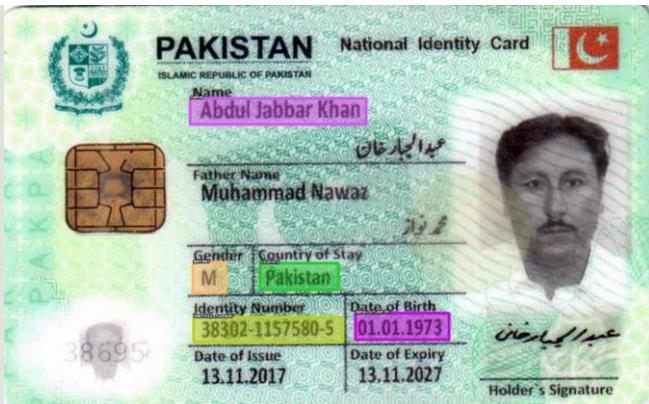
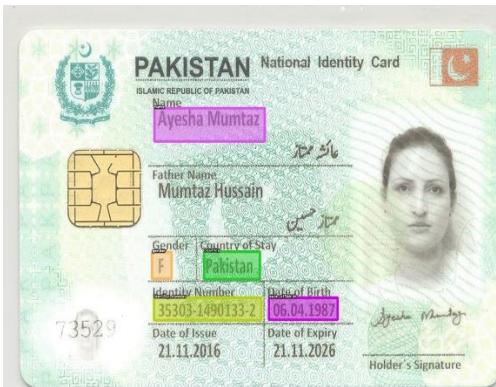


2. Annotated Images for Pakistan CNIC



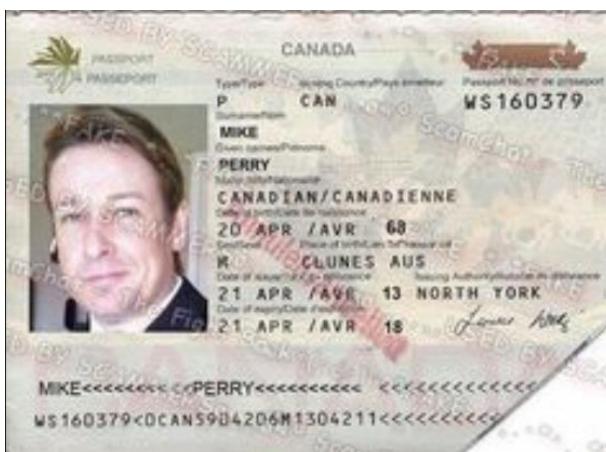


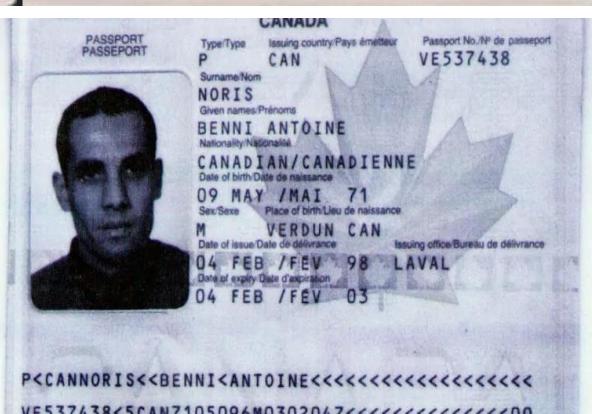
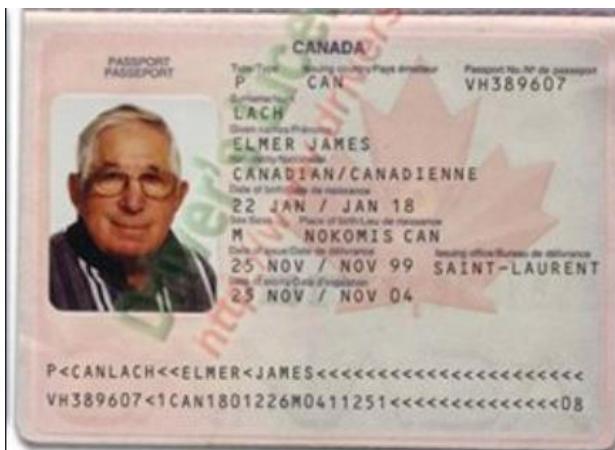


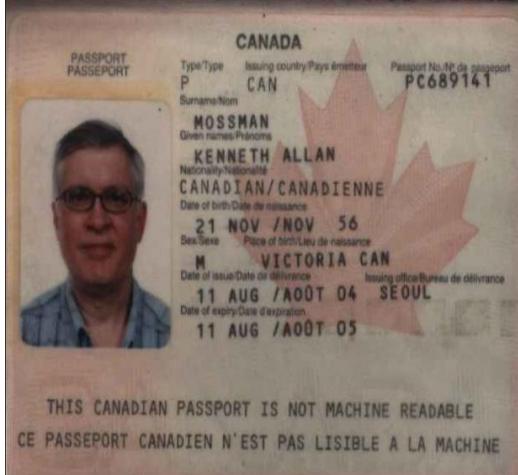
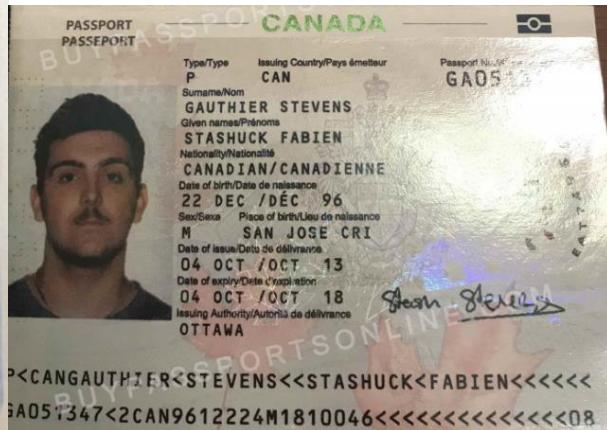
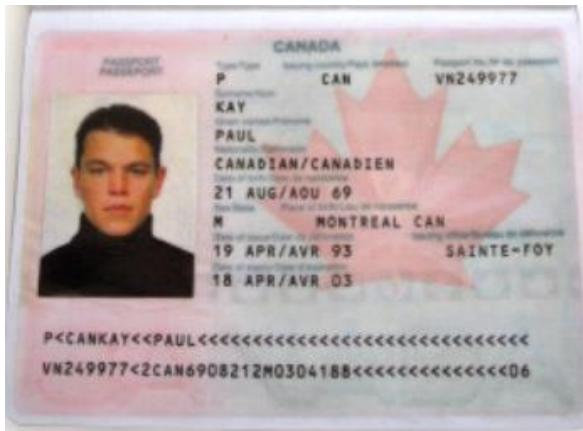


3. Original Images for Canadian Passport





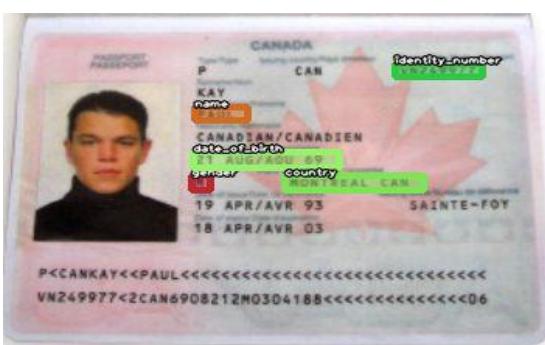


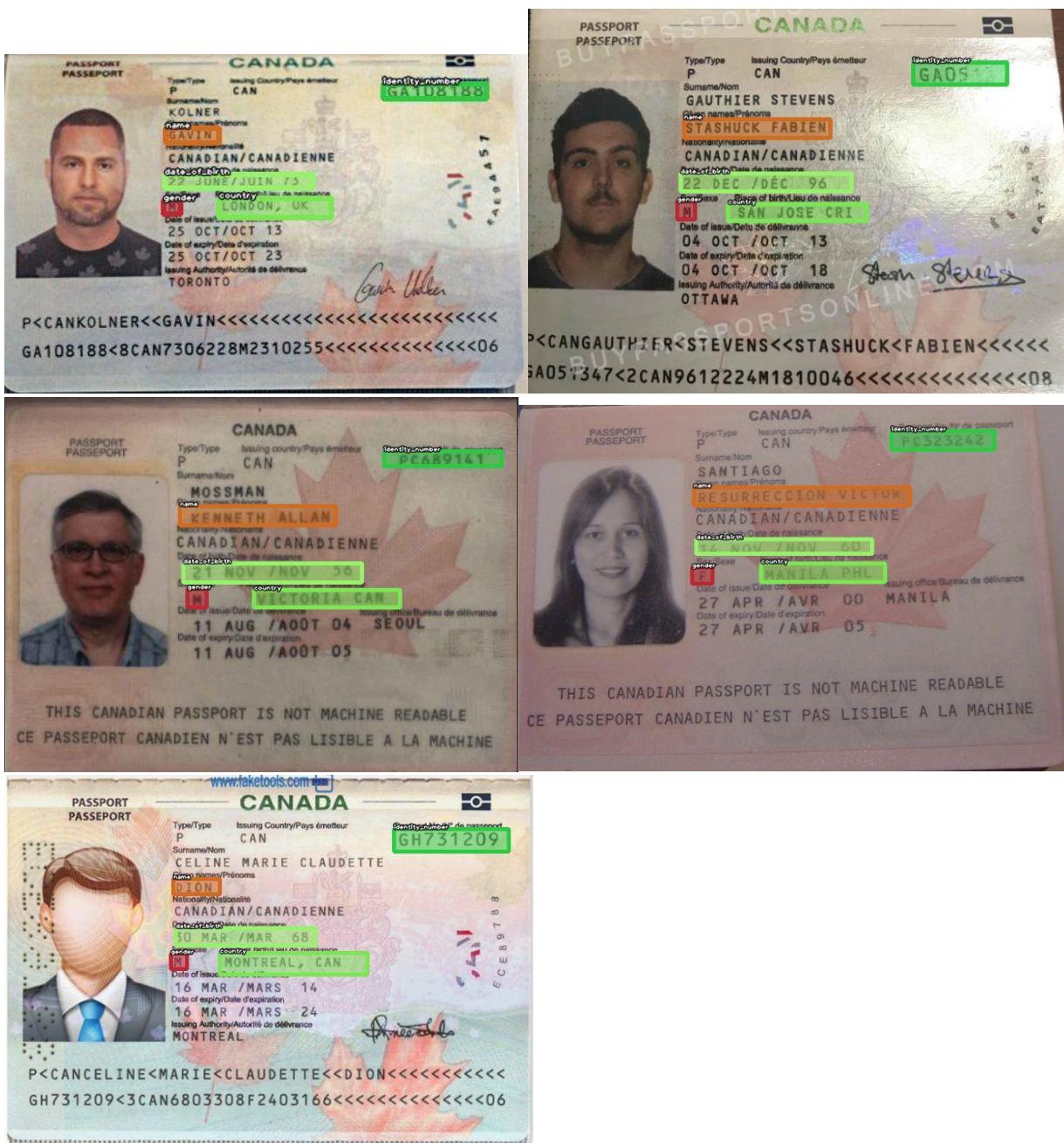


4. Annotated Images for Canadian Passport









5. Original Annotations File

The .json files of original annotations for both type of cards is been submitted with the submission folder.

6. Augmentation Details

The original images for both the type of cards are rotated 4 degrees. In addition, we have also flipped the images. By this technique of rotation of 4 degrees, we get 90 images for a single image and by flipping; we get a flipped image against an original image. After applying both the techniques, we get total of 2,275 augmented images for each type of card.

7. Augmented Data Annotations File

The .json files of augmented annotations for both type of cards is been submitted with the submission folder.

8. Division of Images for Training and Testing

For training the model for each type of card, the number of training images used is 2,275. Moreover, for testing the models the number of testing images to be used for each model is 500.