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CVI Sub-Team

1) Apply Image processing on THIS image to make it easy to identify the number of sheets, in the image.

2) Develop a Deep Learning based image classifier to group/classify images into 6 distinct categories
   - ➔ Drone
   - ➔ Fighter-jet
   - ➔ Helicopter
   - ➔ Missile
   - ➔ Passenger-plane
   - ➔ Rocket

   Labeled Data for each of the class is provided to you, HERE
   Use the data to create train set and test set
   You are required to do the following:
   A. Train a DL model on given set of images to make correct predictions
      - ➔ You can use pre-trained models like VGG16, VGG19 or any other suitable model
      - ➔ You can modify a pre-trained model or start from scratch.
      - ➔ You are free to use any DL framework (pytorch, tensorflow or a high level framework like keras).
      - ➔ You must use python programming language for this assignment. (preferably .ipynb file)

   B. You must report quality of your classifier.
      - ➔ Plot the learning curves => Accuracy vs epoch (accuracy of the model as you train it), plot for both **training** and **test data**
      - ➔ Report confusion matrix
      - ➔ Please don't use validation set (during training) to boost quality of your classifier. It is not a contest of who gets best accuracy. This assignment is to see how you approach the problem.

   C. Submit your work via git repository
      Work should include,
      - ➔ Code, preferably **.ipynb** file
      - ➔ PDF report explaining what you did

If you need any clarifications,

Or if you're new to the field, and didn't understand what to do/ where to learn etc. Feel free to DM me on Whatsapp.

All the very best, Let's learn together 🤟🤟🤟

--- ALL THE BEST ---