

BaggageAI Computer Vision Hiring Assignment

Case Study:- Image Processing

You are given two sets of images:- background and threat objects. Background images are the background x-ray images of baggage that gets generated after passing through a X-ray machine at airport. Threat images are the x-ray images of threats that are prohibited at airport while travelling.

- **Your task is to cut the threat objects, scale it down, rotate with 45 degree and paste it into the background images using image processing techniques in python.**
- Threat objects should be translucent, means it should not look like that it is cut pasted. It should look like that the threat was already there in the background images. Translucent means the threat objects should have shades of background where it is pasted.
- Threat should not go outside the boundary of the baggage. ****difficult****
- If there is any background of threat objects, then it should not be cut pasted into the background images, which means while cutting the threat objects, the boundary of a threat object should be tight-bound.

You should share the python files which you have written for this task and also the results that are generated. You should also provide a proper well-written Readme file which justifies each and every algorithms and parameters you used with proper reasoning. You should complete this task within **two days** from the time it is shared with you.