

EE-451 - Image Analysis and Pattern Recognition

FINAL PROJECT

Group 8

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List of packages used in the code:

- **treys** → (card);
- **termcolor** → (colored);
- **pandas**;
- **scikit-image** (version 0.19.2) → (rescale from skimage.transform, threshold_triangle from skimage.filters, threshold_otsu from skimage.filters, threshold_mean from skimage.filters, threshold_li from skimage.filters, threshold_isodata from skimage.filters, gaussian from skimage.filters, morphology, active_contour from skimage.segmentation, convex_hull_image from skimage.morphology, measure, data, color, transform, img_as_ubyte from skimage.util, corner_peaks from skimage.feature, corner_harris from skimage.feature import, rgb2gray from skimage.color, hough_circle from skimage.transform import, hough_circle_peaks from skimage.transform, canny from skimage.feature, circle_perimeter from skimage.draw, imread from skimage.io, imshow from skimage.io);
- **PIL.Image**;
- **numpy**;
- **os**;
- **utils** → (eval_listof_games, debug_listof_games, save_results, load_results);
- **matplotlib.pyplot**;
- **sys**;
- **math**;
- **typing** → (Union);
- **glob** → (glob);
- **scipy** → (ConvexHull from scipy.spatial, rotate from scipy.ndimage.interpolation, stats);
- **cv2**;
- **time**;
- **sklearn** → (KNeighborsClassifier from sklearn.neighbors).