Poker Hand Detector and Evaluator

Computação Visual - OpenCV

OpenCV

André Santos - 84816
andremb@ua.pt

Image Processing Application

**Poker Hand
Captured Image**

- Six of Clubs
- Five of Hearts
- Three of Spades
- Queen of Diamonds
- Ace of Diamonds
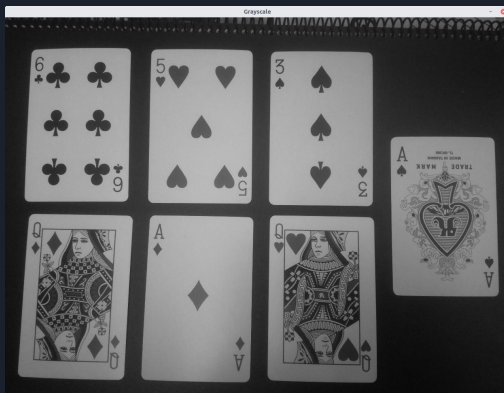- Queen of Hearts
- Ace of Spades

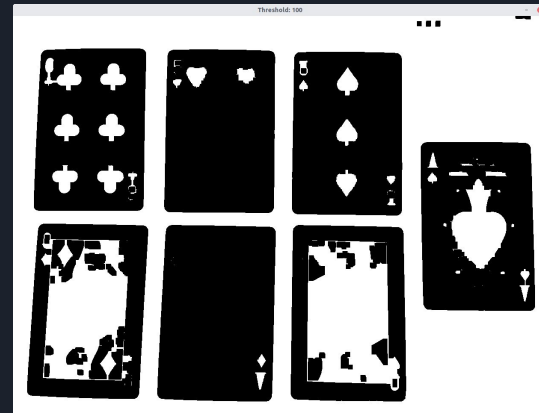**Card Detection**

- Two Pairs, Aces and Queens

Hand Evaluation

Preprocessing

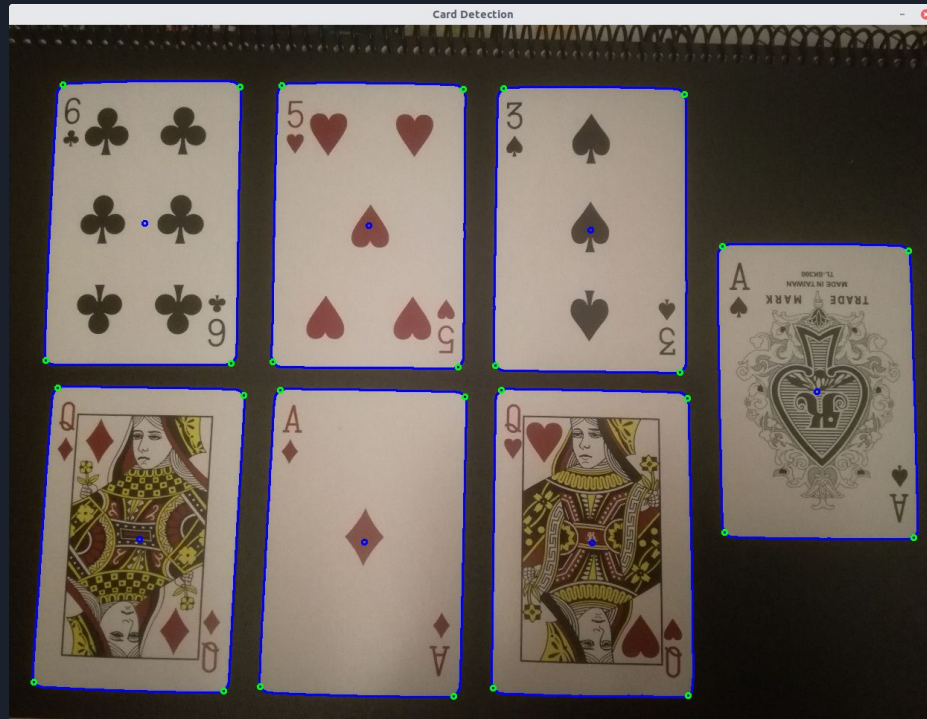**Poker Hand Captured Image**

Grayscale

Thresholding and Closing

Card Detection

From the binary image we get the contours of the seven cards.

Then, we crop each card from the original image.

Rank and Suit Identification

In order to detect the rank and suit of the cards, we need to find it's upper left corner and compare it with the comparison images.

Rank comparison by subtracting booth images

Comparison images source:
https://github.com/EdjeElectronics/OpenCV-Playing-Card-Detector/tree/master/Card_Imgs

Hand Evaluation and Results

Final Result:

Detection and Evaluation

```
Detected cards: Qh Ad Qd As 3s 5h 6c
Hand evaluation: Two Pair, Aces and Queens
```

For the poker hand evaluation was used an existent module, which can be found here:

https://github.com/HenryRLee/PokerHandEvaluator

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