

## Assignment 8

### Team - DenseMatrix

#### CPU Approach:

We continued our work on the UIUC Car dataset. We used HOG features with SVM this time to train our classifier, as opposed to Haar-based Cascade Classifier we used previously. For drawing bounding boxes, we've used a *finalThreshold* value of 1 in this [function description](#).

#### Experiments:

The JSON file is structured like this:

image - Image filename (Converted to .png from .pgm)

cpu - Bounding boxes generated by CPU algorithm

- x - Top-left x co-ordinate
- y - Top-left y co-ordinate
- width - Width of bounding box
- height - Height of bounding box
- confidence - Confidence measure is the weight associated with each box as described in [HOG Descriptor documentation](#).

hpu - Bounding boxes generated by HPU algorithm

- boxes - Described like CPU boxes above
- time - Time taken for a user to complete the task, in seconds

groundTruth - True locations of bounding boxes provided with the car dataset.

Images are presented in random order.

The resultant JSON files for the experiments are stored here: <http://goo.gl/Qa7Giz>

The HPUs are hosted here:

**Experiment 1** - [104.131.7.79:3000](#)

**Experiment 2** - [104.131.7.79:3001](#)

**Experiment 3** - [104.131.7.79:3002](#)

**Experiment 4** - [104.131.7.79:3003](#)

Some links might not work initially, but will be up by Monday evening.