

Monthly progress report

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1 Monthly progress report - March 2015

1.1 Tasks completed

- Training of Spatial pyramid pooling convolution neural network for classification of input images into one of the ten logo brand categories.
- Accuracy of the classification was increased by changing the network parameters, currently the classification accuracy is around 80 percent for the validation set of images containing logos.
- Crawling search engines like Google and Bing to download images containing brand logos and manually filtering them to maintain quality of the logo images.
- Wide variety of images were crawled to create category with no logos in it.
- Classification works on input video streams. For eg. For Fedex commercial the accuracy of detection is higher than the older tried method.
- Ran the trained classifier with commercial movies with brand logos, the accuracy of detection is moderate. There are few misclassification errors. Mitigation plan is to increase images per category during training of the spatial pyramid network.

1.2 Tasks to be done

- Implementing brand logo localization algorithm in a single image. This task will also cover the task of detecting and localizing multiple logos in the image.
- Improve images database to incorporate more brand logo types.
- Extend the implementation to classify, localize and detect logos in short duration video streams.
- Extend the above task outcome to detect and localize logos in movies.

1.3 Problems faced

- One week holiday due to health problem.
- Hard disk crashed with some of the latest code base, had to re-implement the code.