Visual Recognition Project Proposal

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1 Problem

We take up the problem of estimating depth in an image. We find this task interesting and would like to find out how it's done. We shall read and implement a deep learning architecture for the same. The architecture we intend to implement is from the paper "Depth Map Prediction from a Single Image using a Multi-Scale Deep Network" [1] by David Eigen, Christian Puhrsch and Rob Fergus.

We intend to start by implementing their network on our own. We note that code is already available[2] but we will try our own (possibly simplified) implementation. If possible, we will try experimenting with the network and observe the results. Time permitting, we will look at other approaches to the problem.

References

- [1] Christian Puhrsch David Eigen and Rob Fergus. Depth map prediction from a single image using a multi-scale deep network. NIPS, 2014.
- [2] http://www.cs.nyu.edu/deigen/depth/.