Deep Anomaly (MID-TERM PROJECT REPORT)

Course Project for the course CS 763- Computer Vision, Spring 2019

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Paper being implemented

Deep-Anomaly: Fully Convolutional Neural Network for Fast Anomaly Detection in Crowded Scenes M. Sabokrou, M. Fayyaz, M. Fathy, Z. Moayed, and R. Klette. [Plan A]

Datasets being used

1. UCSD Anomaly Detection Dataset
   http://www.svcl.ucsd.edu/projects/anomaly/dataset.html
2. Subway-Exit dataset (Amit Adam et al.)
   http://vision.eecs.yorku.ca/research/anomalous-behaviour-data/

Current Progress

- Have gained a thorough and complete understanding of the paper, previous work and all the components of the network involved.
- Have procured the datasets, and decided which datasets to use and how.
- Have prepared the functions required to preprocess the dataset on the go.
- Have procured a pre-trained Alexnet to use with our model.
- Have built the trainable layers of the network (Sparse Auto-encoders, etc.) along with the required Distance functions and Gaussian Classifiers.
- Have built a method to implement transfer learning.