CSE 676: Deep Learning
Optional Project for Fall 2018

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1 Face Recognition

1.1 The Task

Understand and implement FaceNet architecture explained in paper.
Recognize faces with high accuracy
Use CASIA-WebFace dataset to train, and Validate on LFW
Achieve accuracy near to the results mentioned in paper on lfw dataset
Understand data preprocessing, metrics used, training code and testing code
Understand the loss functions
Present the implementation and the paper

1.2 The DL Solution

Use Inception-Resnet architecture for learning representations and feature extraction.
Source code is available at https://github.com/davidsandberg/facenet

1.3 Project Proposal

You need to present a project proposal about four weeks into the semester. Prepare your proposal in the form of a presentation with four parts:
1. Title (with authors), Problem Domain, description, and Data Sources
2. Variables together with their types, and proposed distributions
3. Evaluation methods.

1.4 Final Project Report

There are two deliverables:
1. project code
2. project report

The project report should describe the problem domain, data-set, algorithms used and performance (time complexity and accuracy). Use a format such as a conference paper for submission to NIPS or ICML. Include appropriate graphs and charts.