ML2 Final Project - Group Proposal

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Dataset: https://susanqq.github.io/UTKFace/

Project Idea: Age Detection/Age Recognition

Deep Learning Aspect: Our goal for our project is to use a CNN model and a VGG16 pretrained model to compare the performance of each when predicting age detection for image classification. We selected this topic in order to gain experience with working with a pretrained model and to observe whether or not its performance is in fact more enhanced than a CNN model that is built from scratch as many research reports have suggested. We also wanted to see if the performance of a pretrained model is dependent on the dataset that is used. We will be customizing both the CNN model and VGG16 model using Python in the keras framework. Reference materials we will be using in relation to our project our two papers that analyze age recognition in CNN networks titled "Very Deep Convolutional Networks for Large-Scale Image Recognition" by Karen Simonyan and Andrew Zisserman (https://www.robots.ox.ac.uk/~vgg/publications/2015/Simonyan15/simonyan15.pdf) as well as "Deep Expectation of apparent age from a single image" by Ramus Rothe, Radu Timofte, and Luc Van Gool (https://www.computer.org/csdl/proceedings-article/iccvw/2015/5720a252/12OmNviZlBv).
We are going to judge the performance of the models using an accuracy metrics and testing the accuracy of the model in reference to the x and y training and testing sets.