Problem Statement: Identify a face image by classifying to one of K classes. Extract LBP, HoG and CNN Features using the code provided and compare different techniques.

Objective: Given an Image, identify the face and predict the person.

Models Used:

Feature extractors:

1. CNN (resnet50)
2. HoG features
3. LBP

Classifiers:

1. kNN
2. Decision Tree
3. Ensemble Learning

* Random Forest
* Ensemble of Random Forests

1. SVM (to be implemented based on the time constraint)
2. Naïve Bayes

Timeline

In Gantt chart

Workflow:

Model:

1. Why?
2. Some modifications we are thinking of making
3. Feature Extraction and Basic Data Exploration
4. Classifiers training

* Basic Training
* Hyper parameter tuning

1. Testing the classifiers
2. Performance evaluation and reasoning
3. Work on Optional Goals