# Project A: Person Identification from Face Images

### CSC 481/581

### Artificial/Computational Intelligence

### Summer 2018

## Project Update

The purpose of this report is to update the progress of the project to this point. We have agreed to post our project on github to make updates, changes, tasks tracking easier. We also have installed sci-kit learn using python as our main programming language for this project.

Setting up the project and figuring out how to approach design and building the project has required investigation into looking at how similar projects attempt tackling the problem. The problem is reading faces and letting the program decide who the face belongs to. <https://github.com/bioidiap/bob.bio.face> is one program we have looked into because it uses the same AR face database. Reading the AR face database, <http://www2.ece.ohio-state.edu/~aleix/ARdatabase.html> also has been helpful. <http://scikit-learn.org/stable/auto_examples/classification/plot_classifier_comparison.html#sphx-glr-auto-examples-classification-plot-classifier-comparison-py> has been a great example to see how sci-kit learn uses other classifiers, and after todays lecture this has made more sense to us.

The database has required some time to figure out the best way to read the files because we are missing a few neutral expressions for some of the persons. We have decided to skip those who are missing normal images and create a normal datasets (136 – 17 (missing normal images)).

We are currently working on finishing the 7 features. We have decided to split the programming for the features. Scaling is not something we have looked at just yet. Our next step is to split the data to learning and testing starting with a 60% learning and 40% testing. Then we will set up one classifier K-Nearest Neighbors.

The plan to make any updates to scale the features is to read what other studies and review what changes were made to get more accuracy. We also plan on adding a few more classifiers and possibly more features by the end of the project. This weekend is set to push forward and make some real momentum in getting the first classifier working as our goal.