

# MATH 9880 (Fall 2019)

## Homework 1

### Description

The goal of this project is to implement a machine learning model and run it on the Palmetto high-performance computing cluster. You may use any programming language.

### Problems

1. Apply for a Palmetto educational account (instruction available on Canvas).
2. Write a program that performs classification via any model.
3. Submit your program to Palmetto (for Palmetto usage instructions, see <https://www.palmetto.clemson.edu/palmetto/index.html>). If the general work queue is busy, you may use “qsub -q ouyanggrp <PBS filename>” (available soon) to submit your Palmetto jobs to the two nodes that our class has priority access to.
4. Use your classification program to classify images of cats and dogs. Download the Kaggle cats and dogs dataset from Microsoft website (<https://www.microsoft.com/en-us/download/details.aspx?id=54765>). See below for some images in the dataset. Note that the images could be of different size and color and some image files may be corrupted and unreadable.

