

**ECE421: Introduction to Machine Learning**  
**Programming Assignment 4**  
**Assigned: March 20, 2023; Due: April 7, 2023 @ 11:59 p.m.**

**General Notes**

1. Programming assignment can be done in groups of up to 2 students.
2. Only one submission from a group member is required.
3. Group members will receive the same grade.
4. Unless permitted, no late submission is accepted.
5. Please post assignment related questions on Piazza.

**Submission Guidelines**

Programming assignments are submitted via Quercus and you can resubmit your assignment as needed up until the submission deadline. After the deadline, further modifications will result in the assignment being marked as late. You need to submit your version of the following files:

1. `KMEANS.py`
2. `GMM.py`
3. `PA4_qa.pdf` that answers questions related to the implementations. We also accept the pdf version of the Jupyter Notebook (with figures and code). The `KNN.py` and `GMM.py` Python file are still required.
4. The cover file (this file) with their name and student ID filled.

Please pack them into a single folder, compress into a `.zip` file and name it as `ECE421_PA4.zip`.

**Group Members**

Group Members	
Name	Student ID
Ji Qi	qiji11
Richard Zhao	zhagyuc7