<u>**Active Learning for Computer Vision Curriculum**</u>

<u>**Project 6 Solution: Online Active Learning**</u>

Total Points Possible: 50

<u>**Problem 1 (10 points)**</u>

How does online active learning differ from pool-based active learning?

In pool-based active learning, the learner is exposed to a pool of unlabeled samples and it iteratively queries samples for annotation. In online active learning, the unlabeled data samples are encountered sequentially over time. At any given point of time, the learner is exposed to a single (or a small batch of) unlabeled samples. It needs to decide on-the-fly which unlabeled samples should be queried for annotation. Samples discarded cannot be accessed back and the learner is not aware of the samples that are yet to arrive.

<u>**Problem 2 (40 points)**</u>

A sample output is shown below. The correct answer should resemble this output.

Note: this graph is from the paper by Sculley (discussed in the lecture material). This experiment was conducted on a different dataset with different training, unlabeled and test splits. Thus, the output on the MBGC dataset may not exactly match this output. This should just be used as a reference.