

COSC 410LA S25 Lab 6: Image Classification with CNNs

This Lab is due **Friday, Mar 14, 2025 at 11:59PM**.

Introduction

The goal of this lab is to introduce you to working with image data and building a CNN for image classification. You will expand your toolkit to the use of PyTorch for implementing deep convolutional neural networks.

Here are some learning objectives for this lab: 1. Properly handle image data for classification 2. Create and Train an CNN image classification model

There are 4 parts to this lab. The table below highlights what you are expected to do in each part.

Part	Description	Write code?	Write responses?
1	Creating a dataloader	Yes	No
2	Inspect data	Yes	No
3	Train a model	Yes	No
4	Evaluate a model	Yes	No

Provided Files

- `Lab6.ipynb`
- `train_split.txt`, the training split of the image data
- `test_split.txt`, the test split of the image data

Work through `Lab6.ipynb` with your partner(s). Then submit `Lab6.ipynb` with the cell outputs saved to Gradescope.