

COMP 4230  
Fall 2024  
Prof. Stucki

### Assignment #7: TensorFlow Lab 3

For this lab you will be working more independently to run some TensorFlow experiments.  
**The material in Moroney chapter 3 will be essential to this assignment.**

#### Task 1:

- Using the previous lab as an example, and the URL on page 60 of Moroney, download and unzip into appropriate folders/files the Rock/Paper/Scissors image dataset. This can be done either in Colab or on your local machine.

#### Task 2:

- Using the previous lab as an example, along with the description and explanations found on pages 59-62 of Moroney, design a CNN for categorizing images into one of the three categories Rock, Paper, and Scissors.

#### Task 3:

- Experiment with different architectures (number of layers, sizes of layers, etc.) to get good results from training.
- Play around with different image augmentation strategies to reduce over-fitting. Also experiment with dropouts to see what impact this has.

#### Task 4:

- For this lab all you need to submit is your final source code with the version that you found performed the best.

Turn in your lab via email by Monday, October 21.