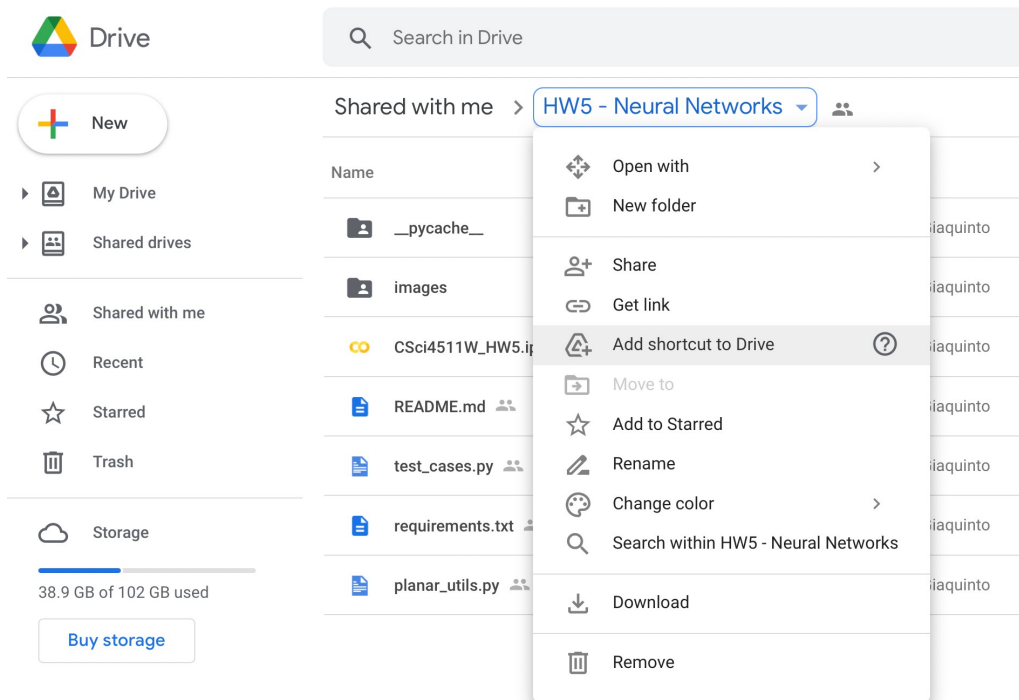# Homework # 5

New Attempt

Due Apr 23 by 6pm   **Points** 100   **Submitting** a file upload
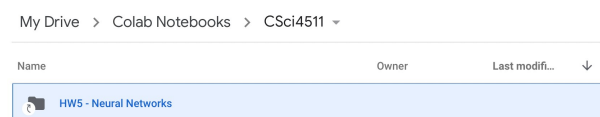**File Types** ipynb, py, jpeg, jpg, pdf, zip, and txt

---

Go to the google drive folder with all the materials: **https://drive.google.com/drive/folders/1unFnq0mhIKTslPEy8ThJ8z4r9Z6b3yeV?usp=sharing   (https://drive.google.com/drive/folders/1unFnq0mhIKTslPEy8ThJ8z4r9Z6b3yeV?usp=sharing)**

Make a copy of the folder in your own google drive in the location **"Colab Notebooks" > "CSci4511".**

You should see this in your drive:

See the README file in the folder for how to complete and submit the notebook. Good luck!

UPDATE: If you downloaded the notebook folder before 4/17/2021 you may get an error when trying to mount your google drive, just fix the typo by changing how the HW_PATH variable is set to:

```
HW_PATH = os.path.join(CLASS_PATH, "HW5 - Neural Networks")
```

HINT: Since we aren't assuming everyone is familiar in linear algebra, I want to clarify that unless the equations in the notebook specifically use the star "*" symbol, then it is referring to doing matrix multiplications. To do matrix multiplication use numpy, for example:

```
np.dot(W1, X)
```

If you do see the "*" in an equation that refers to element-wise multiplication, which you can do by:

```
np.multiply(np.log(A2), Y)
```

or, equivalently:

```
np.log(A2) * Y
```

Hope that helps!