Homework 04

In Lesson 04, you learned how convolution can be used as a form of image manipulation. Now we'll translate that into code.

Protip: Open the Lesson 03 Code Along while you work on this homework.

Introduction

1. Read through the starter code provided to you. Take special note of the `display_image` and `read_image` functions provided for you. They are the same functions we used in the Lesson 03 Code Along.
2. Load the `cat.jpeg` image into a variable using the `read_image` function. Display the cat as an image.

Tasks

For Task 1, you may find functions like np.zeros and numpyArray.fill helpful from the numpy library. Use `matplotlib` to display arrays as images and `scipy` to convolve as we've done in class.

1. Convolve the cat image with the following kernels and display the result of each convolution as an image:
   - [ ] 3x3 identity kernel
   - [ ] 100x100 shift kernel that shifts the cat to the right
   - [ ] 3x3 sharpen kernel
   - [ ] 3x3 block blur kernel