

## Instructions for running the code

### 1. The information about the environment

I used python3.6 and opencv library. The operating system is macOS Mojave. If you are a mac user, you can successfully install opencv with the brew command which is “brew install opencv”. This command will install opencv and other modules it need automatically including the newest version of python and numpy and so on.

### 2. Instructions on hybrid\_module.py.

#### 2.1 generate a hybrid image using two images

**python hybrid\_module.py [path-to-image1] [path-to-image2] [output-filename] [sigma-value]**

In this command, sigma value is optional. Its default value is 4.0.

#### 2.2 Output the low-pass version of an image

**python hybrid\_module.py -ol [path-to-image] [output-filename] [sigma-value]**

In this command, sigma value is optional. Its default value is 4.0.

#### 2.2 Output the high-pass version of an image

**python hybrid\_module.py -oh [path-to-image] [output-filename] [sigma-value]**

In this command, sigma value is optional. Its default value is 4.0.

### 3. Instructions on hybrid\_img\_visualization.py

**python hybrid\_img\_visualization.py [path-to-image]**