**README FILE PRNU\_Math 535 PYTHON**

Note that the functions NoiseExtractFromImage and getFingerprint call other functions in this folder, so be sure to write your code and save it in this folder, otherwise your code will not run. Please only turn in the .py files that you write.

The Current Folder you are working in in MATLAB should include the following files:

Math535\_Example.py

requirements.txt

src folder with the following files:

extraUtils.py

Filter.py

Functions.py

getFingerprint.py

maindir.py

Use requirements.txt to install the necessary packages for using this software.

To use NoiseExtractFromImage:

Pass an individual image name to the function to generate an estimate of the PRNU. If passing a filename within a folder (not the current working directory), separate the folders using the os.sep, which accounts for different file separators used in various operating systems. An example of how to use this is given on line 19 of Math535\_Example.py.

To use getFingerprint:

Pass a folder name to the function to generate an estimate of the PRNU for this device. If passing a folder name within a folder (not the current working directory), separate the folders using the os.path.join, which accounts for different file separators used in various operating systems. An example of how to use this is given on line 25 of example.m and an example of how to write .mat is on line 27

An example of how to calculate correlation is on lines 34-35