INT3304E - Image Processing: Homework 1

Hanh Uyen Tran

March 2024

1 Goals

The goals of this homework are:

1. Learn basic Python, the structure of Python programs, and common libraries such as Numpy, OpenCV, Matplotlib, etc.

2. Get used to the Google Colaboratory and Virtual Environments such as Anaconda

3. Document with Latex, code version control with Github

2 Preparatory Readings

Before attemp the exercises, read through Python, Numpy and Matplotlib tutorials.

3 Exercises

3.1 Basic Python

My submission for all the exercises are on UET courses.

3.2 Google Colaboratory

I have done this exercise.

3.3 OpenCV, Numpy, Matplotlib, and Latex

The result of the functions flip_image, rotate_image, grayscale_image are shown below.

Figure 1: Original Image

Figure 2: Grayscale Image

Figure 3: Rotated Grayscale Image