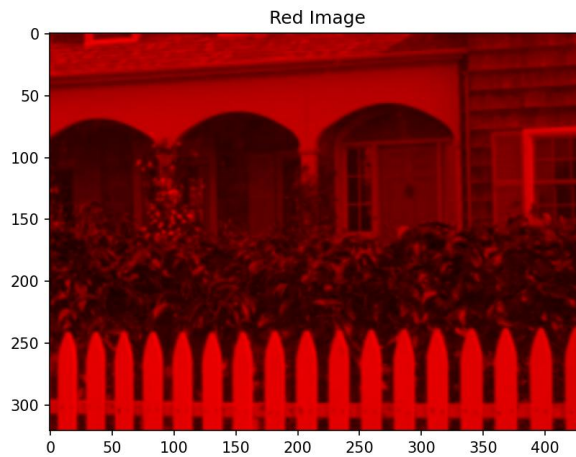# EEP 596 Computer Vision HW #1

Bo-Han Chang Chien
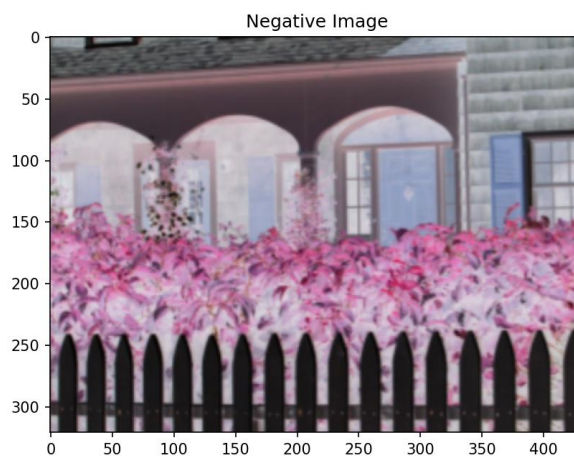
1. Image load / save.

```
Image data type: uint8
Pixel data type: uint8
Image dimensions: (321, 433, 3)
```
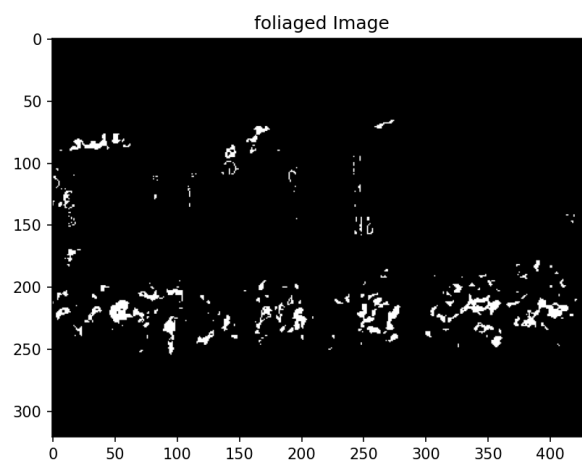
2. Color channels.

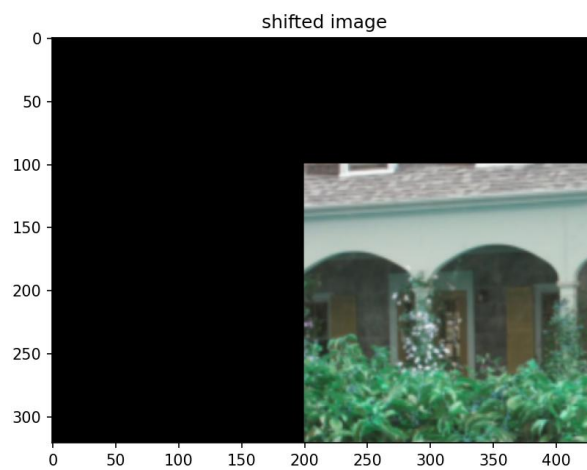Red Image

3. Photographic negative.

Negative Image

4. Swap color channels.

Swapped Image

5. Foliage detection.

foliaged Image

6. Shift.

shifted image

7. Rotate.
rotated image |

8. Similarity transform.
transformed image |
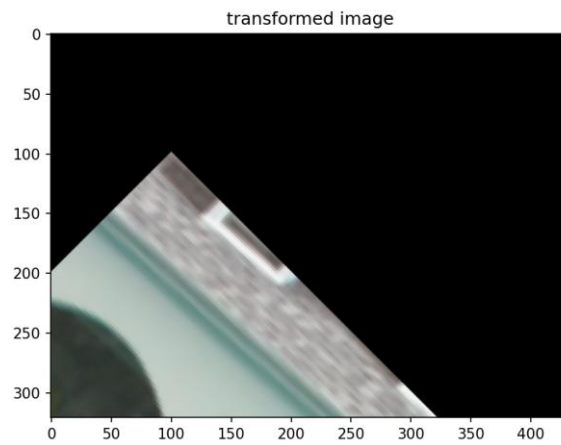
9. Grayscale conversion.
gray image |
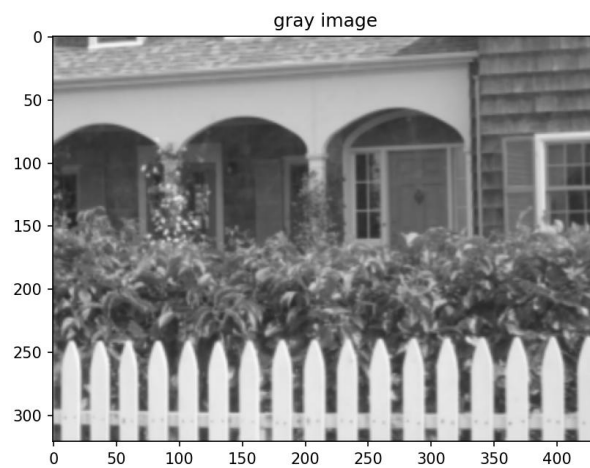
10. Moments.

```
First-Order Moments:
Standard (Raw) Moments: M00 = 11792, M10 = 5617082, M01 = 2254903
Centralized Moments:
x_bar = 476.34684531886023, y_bar = 191.22311736770692
Second-Order Centralized Moments:
mu20 = 137886399.4026459, mu02 = 59351807.97820555, mu11 = 57699869.44996607
```

11. Binary image processing.

Fitted Ellipse