

# OpenCV Imgproc Module Worksheet

Dr Frazer K. Noble

## Activity One

- (a) Draw a red,  $100 \times 100$  px rectangle.
- (b) Draw the contour of the rectangle as a blue outline with a line thickness of 2.

## Activity Two

- (a) Create a random kernel and apply it to an image.
- (b) Apply the following kernel to an image. Describe what it does to the image.

$$K = \begin{bmatrix} 0 & -1 & 0 \\ -1 & 8 & -1 \\ 0 & -1 & 0 \end{bmatrix}$$

## Activity Three

- (a) Compute the affine transformation, given the following pairs of points:

$$x = [(0, 0), (5, 0), (0, 5)]$$

$$y = [(0, 0), (25, 0), (0, 25)]$$