**CSC 4760 Homework 5:**

A screenshot of a computer

Description automatically generated

A screenshot of a grid

Description automatically generated

Figure 1 – Application of Filter 1 to the image to create a feature map. I used excel to rigidly apply the filter to the image and generate the feature map because I did not trust doing it by hand.

A screenshot of a computer

Description automatically generated

Figure 2 – The code for the filter applying excel feature to show my work.

A screen shot of a graph

Description automatically generated

Figure 3 – The application of filter 2 to the image, and the generated feature map.

A black text on a white background

Description automatically generated

A red circle in a white grid

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Figure 5 – Application of max pooling to the feature map generated from filter 1. Since the max pool is 3x3, no additional feature map is generated, and a single numerical answer is generated that is simply the largest number in the feature map. The result for filter 1 is 27.

A red circle with numbers and numbers

Description automatically generated

Figure 6 – The application of max pooling to the feature map generated from filter 2. The result is 46.