

## Cuda Averaging Image Report

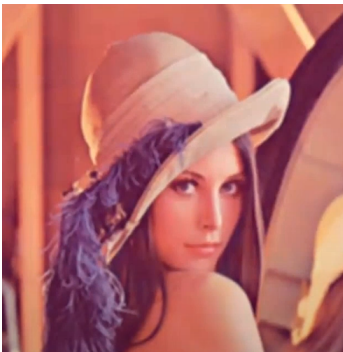
### Introduction:

The goal of this project is to use Cuda to apply a blur to an image using a kernel which replaces a pixel's value with the average in a 5x5 neighborhood. This was done using shared gpu memory, following a tutorial online from [here](#). We were not required to use shared memory for this project, but tutorials for the shared memory version of this project were actually easier to follow than the distributed memory versions. The source code uses the library pngio found [here](#), which was much easier to operate than Jpeglib.

For the image I used the classic Lena.



### Output image:



This code took .0021 seconds to run on the hallway computers in the DSC. Significantly faster than the implementations in OpenMP or MPI.