CMSC5743 Lab 02

General Matrix Multiply

1 Sample Code:

- Go to the `./Lab02-code/`
- Run `sh run_matmul.sh` in your terminal
- You can change many places in the code to get different runtime
  - matmul()
  - matmul_ikj()
  - matmul_AT()
  - matmul_BT()

2 Assignments:

Q1 Change the shape of matrix A, B mentioned in `matmul.cpp` to get the best performance of your code and write down your configuration

Q2 Learn the `im2col` from the **Useful Materials** Section to implement it from scratch using C++ to optimize convolution operation

- Input_Feature_Map: $4 \times 4 \times 3$
- Kernel_Size: 3×3
- Num_Kernel: 3

Useful Materials:

- MATLAB im2col
- Making faster
- ConvNets in practice

Tips: You should learn the code style from the sample code to build your project.