

Wenhan Liu

- Implemented the function that allows the CNN to use the Hanning window.
- Altered the structure of the CNN to match the model mentioned in the paper that has the Hamming window only in the first layer and $k_b = 3$, and ran it on CIFAR-10. Didn't put it in the report due to space constraint, as it was not the central claim, but it's in the "SYDE_Final_Project_Code" file.
- Changed the original code, commented out the args part and replaced with code so that it can run smoothly on colab, otherwise, it wouldn't generate the graph in the end.
- Changed some hyperparameters, changed batch_size so that the whole process could take a bit less time to complete. Changed class number for different datasets. And for some experiments, changed the number of epochs from 150 to 50/70/90, depends on the situation, as sometimes, it could take too long to run and cause colab to disconnect. For each print() line, put in some string so that it's clear to see what information got printed. Put in title and ylabel for the plots in the end.
- For MNIST, subsampled each input from size of 28x28 to 14x14 to match the method mentioned in the paper, it's in the "SYDE_Final_Project_Code" file.
- Ran the code on MNIST, and Fashion-MNIST.

Shuo Zhang

I have modified the code slightly for:

1.comparing the accuracy output between 3x3 kernel model and 7x7 + hamming window kernel model with n_layer alter from 5-25

2.comparing the accuracy output between 7x7 kernel model (base) and 7x7 + hamming window kernel model with n_layer alter from 5-25

3.running 3x3 kernel model and 7x7 + hamming window seperately to compare their computational cost and accuracy with number of convolutional layers = 5,7,9

(discard) 4. I have alter the resnet18 code for testing the resnet +hamming window result