ECE 361E: Homework 3

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Problem 1

Question 2

Model	Training	Test	Total time	Number of	Floating	GPU
	Accu-	Accuracy	for	Trainable	Point	memory
	racy(%)	(%)	training (s)	Params	Operations	during
						training
						(mb)
VGG11	97.57	76.48	3011.79	9,750,922	306587648	1215
VGG16	97.86	78.89	3622.42	14,655,050	551954432	1425

Question 3

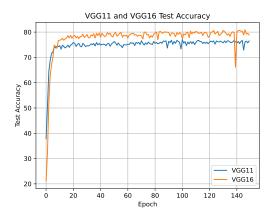


Figure 1: Test Accuracy of VGG11 and VGG16

VGG16 performs incrementally better than VGG11 on both train and test. However it has 1.5x the amount of trainable parameters and 1.8x the amount of floating point operations. The small accuracy boost is not worth the increase in computational complexity, and therefore we would choose VGG11 to train.

Problem 2

Problem 3