Table B.1. Memory requirements (for different data type precisions) to store empirical NTK matrices of common datasets.

			Matrix Size		
Dataset	Training Set	Classes	float16	float32	float64
CIFAR-10	50,000	10	0.5 TB	1.0 TB	2.0 TB
MNIST	60,000	10	0.72 TB	1.5 TB	2.9 TB
SVHN	73,257	10	1.1 TB	2.2 TB	4.2 TB
ImageNet-1k	1,281,167	1000	3,282,778 TB	6,565,556 TB	13,131,111 TB

Table B.2. Estimated compute time (in hours using NVIDIA H100 GPU) for NTK matrix computation.

		Compute Time (hrs)		
Dataset	Model	float16	float32	float64
MNIST	MobileNet	6	25	50
CIFAR-10	ResNet9	6	24	70
	ResNet18	14	63	65
	ResNet50	37	177	297
	ResNet101	107	442	1178