CIFAR-10 Forward Layer (conv1,Convolution) Forward Layer (pool1, Pooling) **Layer Execution Time (microseconds)** Forward Layer (relu1,ReLU) Forward Layer (norm1,LRN) Forward Layer (conv2,Convolution) 3204 omp-16 3380 18751992 8975 2320 4821 15621 2531 Forward Layer (relu2,ReLU) Forward Layer (pool2, Pooling) Forward Layer (norm2,LRN) 3917 omp-12 3797 2295 2432 9850 2943 5923 17951 2887 Forward Layer (conv3,Convolution) Forward Layer (relu3,ReLU) Forward Layer (pool3,Pooling) 5266 3371 4643 8544 25686 5582 13968 4247 3767 omp-8 Forward Layer (ip1,InnerProduct) Forward Layer (loss, SoftmaxWithLoss) Backward Layer (loss, Softmax With Loss) 9462 7421 6455 24891 7666 15549 46448 6275 10020 Backward Layer (ip1,InnerProduct) omp-4 Backward Layer (pool3,Pooling) Backward Layer (relu3,ReLU) Backward Layer (conv3,Convolution) 17279 1277911160 omp-2 44856 14258 28502 84423 10530 18159 Backward Layer (norm2,LRN) Backward Layer (pool2, Pooling) Backward Layer (relu2, ReLU) 31848 30912 2185821526 74049 28202 51797 138320 19615 omp-1 Backward Layer (conv2, Convolution) Backward Layer (norm1,LRN) Backward Layer (relu1, ReLU) 0% 100% 10% 20% 30% 40% 50% 60% 70% 80% 90% Backward Layer (pool1, Pooling) Backward Layer (conv1,Convolution)

Forward Layer (cifar, Data)