

Deep Learning: HW12

1. Transfer learning:
 - a. Create a new FNN that reuses all the pretrained hidden layers of the previous model, freezes them, and replaces the softmax output layer with a fresh new one.
 - b. Train this new DNN on digits 5 to 9, using only 100 images per digit, and time how long it takes. Despite this small number of examples, can you achieve high precision?
 - c. Try caching the frozen layers, and train the model again: how much faster is it now?
 - d. Try again reusing just four hidden layers instead of five. Can you achieve a higher precision?
 - e. Now unfreeze the top two hidden layers and continue training. Can you get the model to perform even better?

