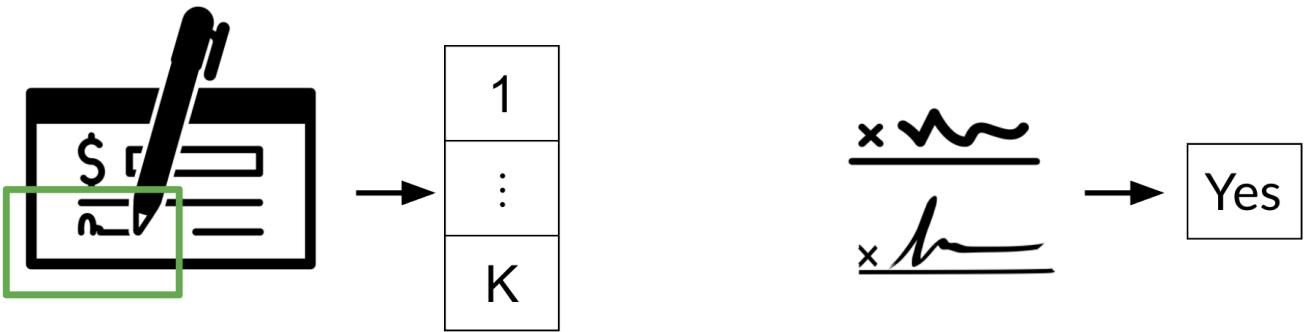


One Shot Learning

Imagine you are working in a bank and you need to verify the signature of a check. You can either build a classifier with K possible signatures as an output or you can build a classifier that tells you whether two signatures are the same.



Classification: classifies input as 1 of K classes

One Shot Learning: measures similarity between 2 classes

Hence, we resort to one shot learning. Instead of retraining your model for every signature, you can just learn a similarity score as follows:



Learn a similarity score!

$\cos(sig1, sig2) > \tau$

$\cos(sig1, sig2) \leq \tau$

- 5 min
- Reading:** Triplets
6 min
- Video:** Computing The Cost I
5 min
- Reading:** Computing the Cost I
6 min
- Video:** Computing The Cost II
6 min
- Reading:** Computing the Cost II
5 min
- Lab:** Implementing the Modified Triplet Loss in TensorFlow
30 min
- Video:** One Shot Learning
2 min
- Reading:** One Shot Learning
4 min
- Video:** Training / Testing
3 min
- Reading:** Training / Testing
4 min
- Lab:** Evaluate a Siamese Model
20 min
- Video:** Week Conclusion
37 sec

Lecture Notes (Optional)

Practice Quiz

Assignment: Question Duplicates