Notes 10-03-2020

Synthetic approach:

Nice that the current result is without smoothing

Smoothing:

We should do a linear combination of the repeated steps (good)

Expect that the graphs would be a smooth curve that increases and then decreases

Calculate a distance matrix to find if a curve goes decreases while it “shouldn’t”

Find sequences that should be examined

U3 is not a closed circle, but it is not a problem

Would be nice to see how the dots relate to the original sequence

* Are the neighboring points related?
* If we put our synthetic in succession, it should be a smooth sequence

When we get a new sample, we should figure out how to align this to the aligned sequences.

Two templates, one for each class.

Classification between run & walk:

1. Angle X (Training data)
2. After temp align 🡪 HOSVD => classes were separated in U2

NEW input/unknown:

1. Align seq. to template 1 & template 2
   1. Then compute distance (which?) d1, d2
   2. Select class 1 or 2 by k = argmin\_i(d\_i)
2. How to get one point in U2?
   1. If known 🡪 select closest based on closest sample
   2. How does Krüger do it?
3. Classifier based on angle feature & threshold

Open Questions:

* Which classifiers? (3)
* How to divide data? (train vs test) (3)
  + Repeat? Maybe not train a NN again…
* Quality of classifier (4)
  + Definition
* How do others do it? (2)
* Smoothing in temp alignment (1)

2DO:

* Finish the smoothing in the temporal alignemnt
* Focus on the “easy” (alignment) classifier, so we have one done
* Divide data into Train/Test (75%/25%) whatever we chose
* Put the good observation of feature in the report