



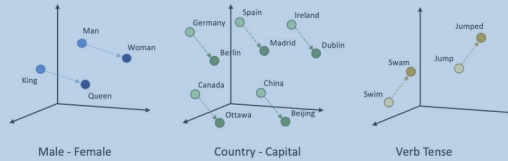
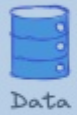
# **Bao Tai Le**

Masterthesis update

WiSe 2024/25  
19.11.2024

**So where am I**  
**today**

## Embedding Network



## Classification Network



Classification Model



Class A

Class B

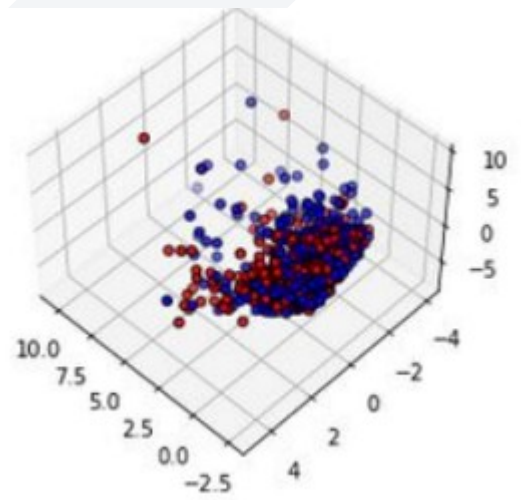
Class C

Discrete Output

```
array([ -0.37087,  -0.54345,   0.66894,  -0.00453,  
        0.74774,  -0.41306,  -0.50472,   0.78362,  
        0.49711,  -0.32627,  -1.13788,  -1.42681,  
       -0.87503,  -1.22414])
```

PCA

```
array([ -1.62946,   1.42960,   0.17960])
```



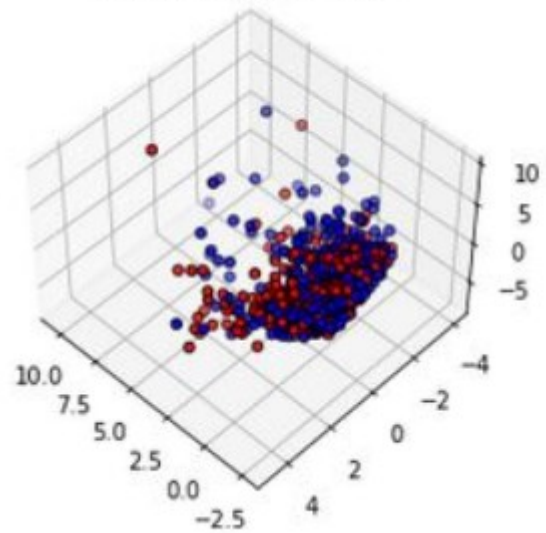
## **Davies Bouldin Score :**

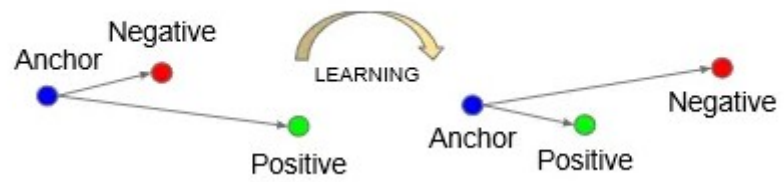
Lower index values indicate a better clustering result. The Index is improved (lowered by increased separation between clusters and decreased variation within clusters)

## **Silhouette Score :**

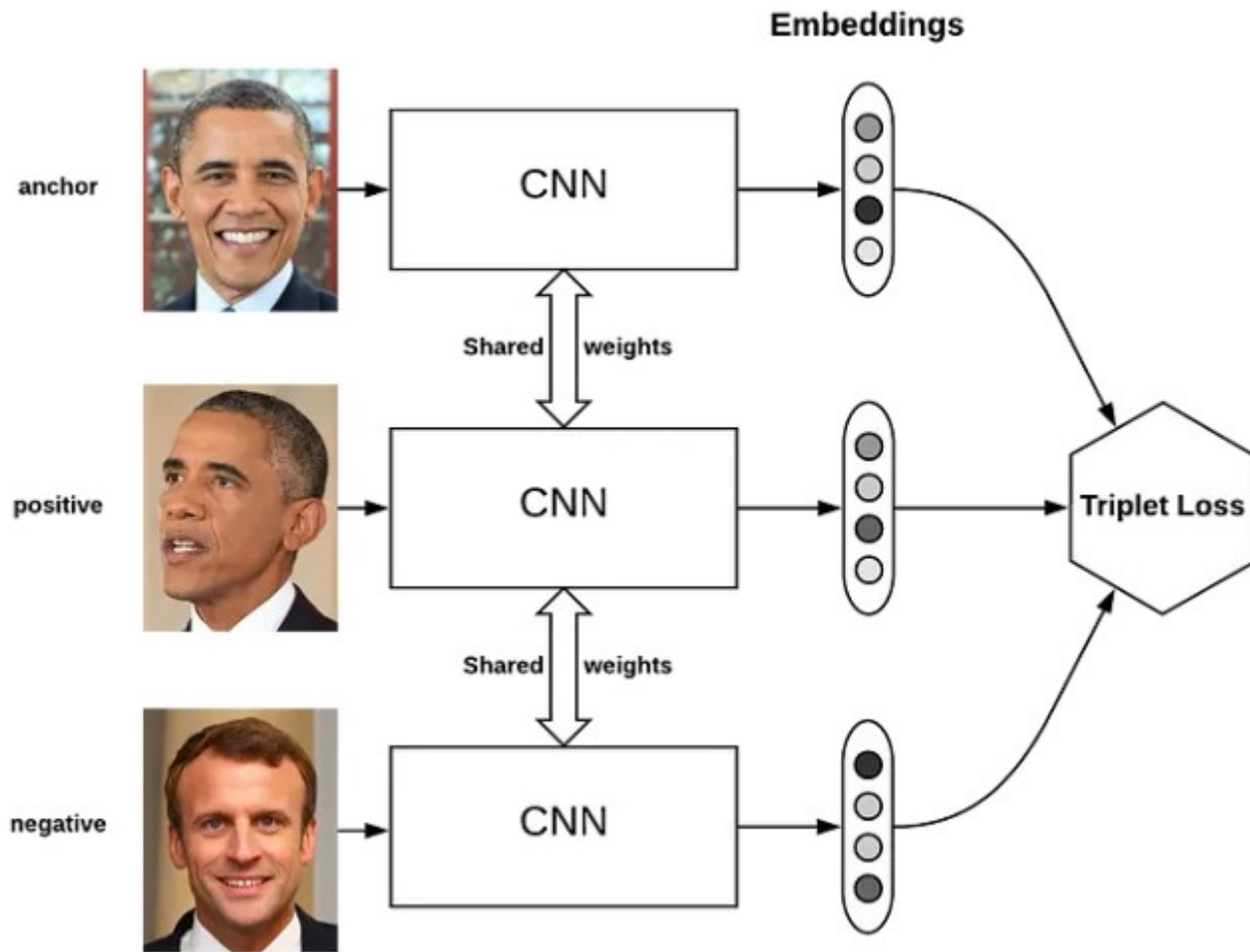
The silhouette score is a measure of how similar an object is to its own cluster compared to other clusters. The silhouette score ranges from -1 to +1 where a high value indicates that the object is well matched to its own cluster and poorly matched to a neighbouring cluster. A clustering with an average score 0.7 is considered to be „strong“ ,0.5 „reasonable“ and 0.25 „weak“.

DS : 7.59 SS :0.01692









Ignore outliers in chart scaling

Tooltip sorting method: default ▾

Smoothing

0.6

Horizontal Axis

STEP

RELATIVE

WALL

Runs

Write a regex to filter runs

— u2

Nov18\_18-02-47\_gar-ws-otp2

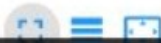
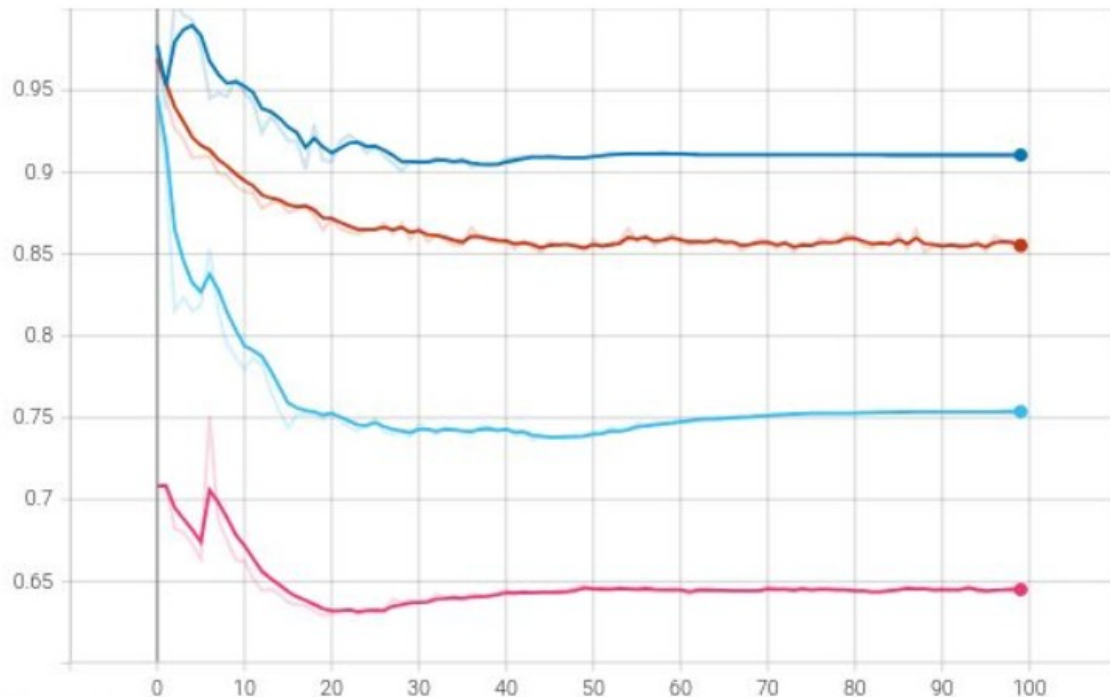
Nov18\_18-02-50\_gar-ws-otp2

Nov19\_11-03-00\_gar-ws-otp2

Nov19\_11-03-15\_gar-ws-otp2

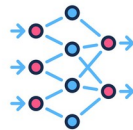
Loss

Loss  
tag: Loss



	Smoothed Value	Step	Time	Relative
s2000.0_with_numhard_1000.0/TriplettVO_Simple_Embedding_V1/100_epochs/Loss_test_loss	0.9105	99	Mon Nov 18, 16:50:44	25m 50s
s2000.0_with_numhard_1000.0/TriplettVO_Simple_Embedding_V1/100_epochs/Loss_train_loss	0.8552	99	Mon Nov 18, 16:50:44	25m 50s
s20000.0_with_numhard_10000.0/TriplettVO_Simple_Embedding_V0/100_epochs/Loss_test_loss	0.7538	99	Mon Nov 18, 18:54:27	3h 8m 47s
s20000.0_with_numhard_10000.0/TriplettVO_Simple_Embedding_V0/100_epochs/Loss_train_loss	0.645	99	Mon Nov 18, 18:54:27	3h 8m 47s

```
array([ -0.37087,  -0.54345,   0.66894,  -0.00453,
         0.74774,  -0.41306,  -0.50472,   0.78362,
         0.49711,  -0.32627,  -1.13788,  -1.42681,
        -0.87503,  -1.22414])
```



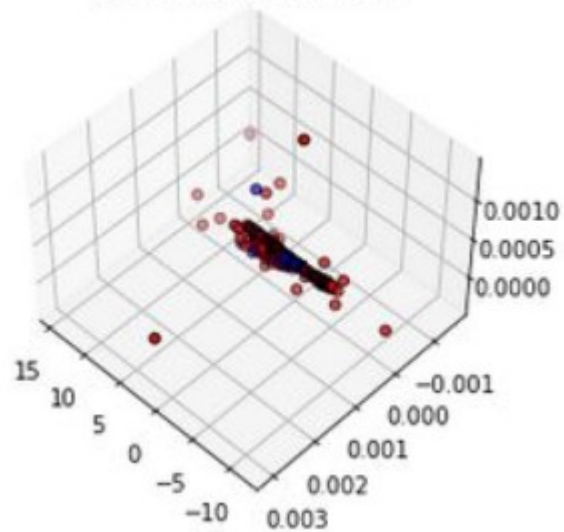
```
array([ 0.09131,  -0.07131,  -0.07131,   0.09132,
         0.09132,   0.09132,   0.09131,   0.09132,
        -0.07132,  -0.07132])
```

PCA

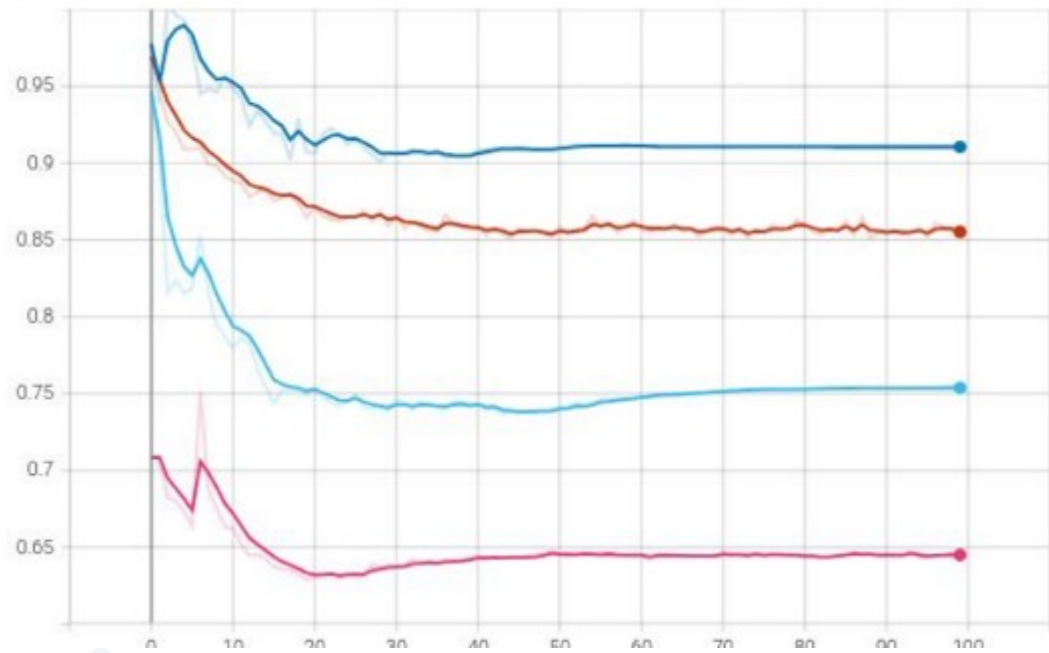
```
[ -0.77328  -0.00001  -0.00000]
```

[ -0.77328 -0.00001 -0.00000]

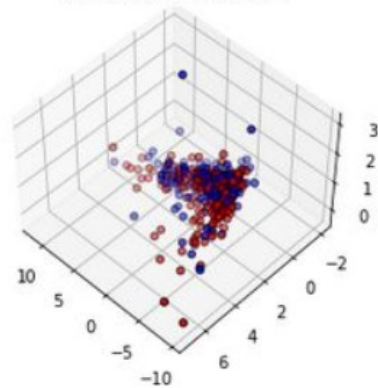
DS : 7.82 SS :0.11594



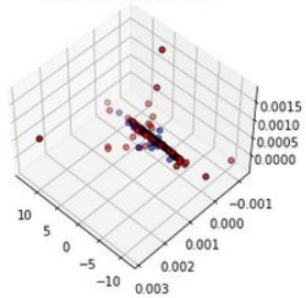
Loss  
tag: Loss



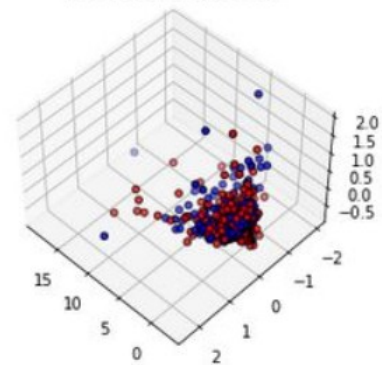
DS : 13.02 SS : 0.00448



DS : 7.95 SS : 0.12183



DS : 15.52 SS : 0.00067



DS : 7.82 SS : 0.11594

