# My Approach

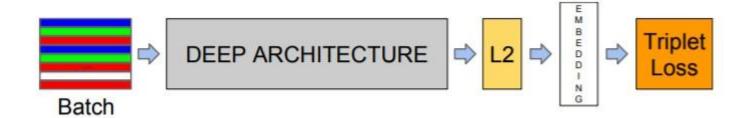
To ML-Pipeline in Intelligent Vision

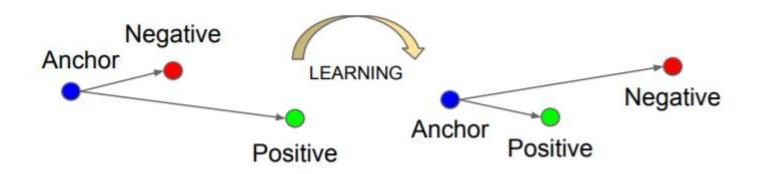
### Face Encodings/Embeddings

For the calculation of Face encodings, face-recognition library adapts the method proposed by the research paper "FaceNet: A Unified Embedding for Face Recognition and Clustering".

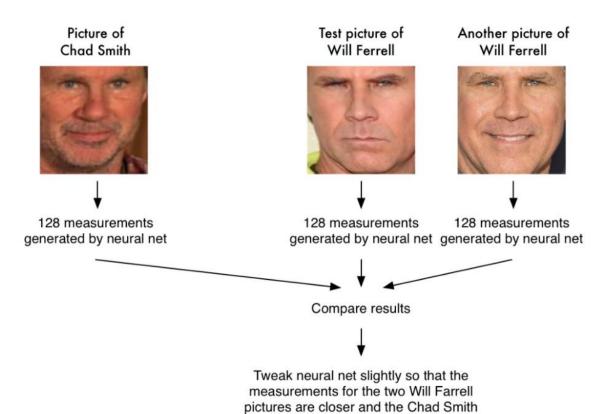
<u>FaceNet</u>, <u>directly learns a mapping from face images to a compact Euclidean</u> <u>space where distances directly correspond to a measure of face similarity.</u>

Hence, the embeddings are calculated are such that the embeddings of the same person will be nearer to each other and embeddings of other person's face will be farther, in the euclidean space.





#### A single 'triplet' training step:



measurements are further away

### Why did I choose DBSCAN?

DBSCAN groups together points that are close to each other based on a distance measurement (usually Euclidean distance). It also marks as outliers the points that are in low-density regions.

So, we do not need to mention the number of clusters. Since, we do not know the number of people who are going to appear in the video, we do not know the number of clusters as well.

## Why did I choose SVM?

