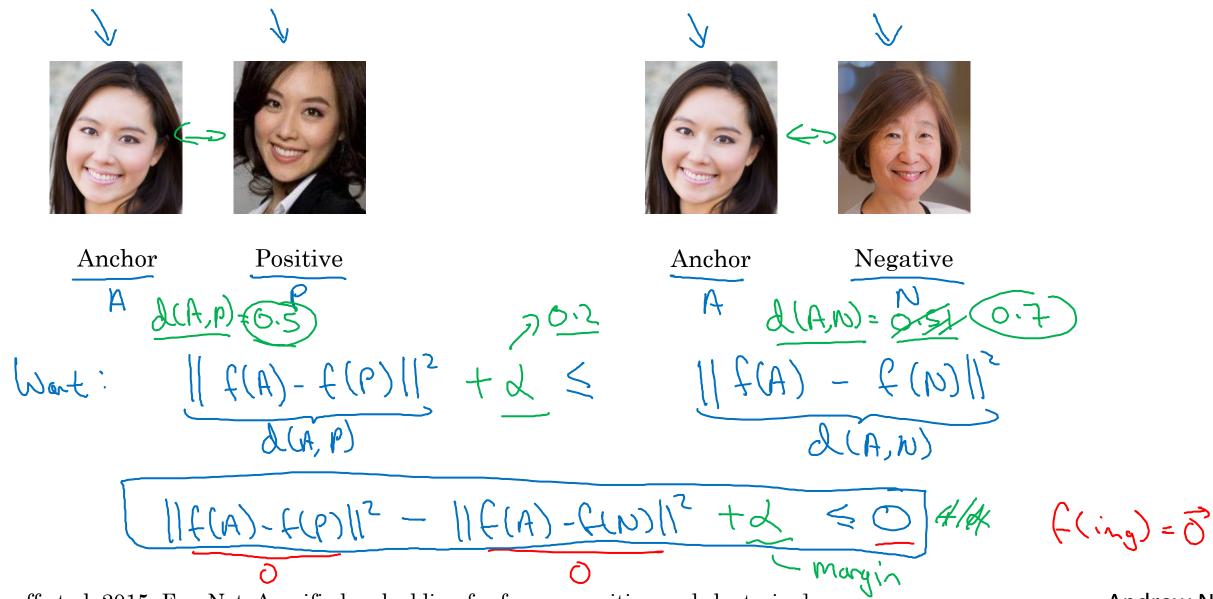


Face recognition

Triplet loss

Learning Objective



[Schroff et al.,2015, FaceNet: A unified embedding for face recognition and clustering]

Andrew Ng

Loss function

Training set: 10k pictures of 1k persons

Choosing the triplets A,P,N

During training, if A,P,N are chosen randomly, $d(A,P) + \alpha \le d(A,N)$ is easily satisfied. $\|f(A) - f(P)\|^2 + \alpha \le \|f(A) - f(N)\|^2$

Choose triplets that're "hard" to train on.

$$\mathcal{Q}(A,P) + \mathcal{L} \leq \mathcal{Q}(A,N)$$

$$\mathcal{Q}(A,P) \sim \mathcal{Q}(A,N)$$

$$\mathcal{L}(A,N)$$



Training set using triplet loss

