深度学习复习1

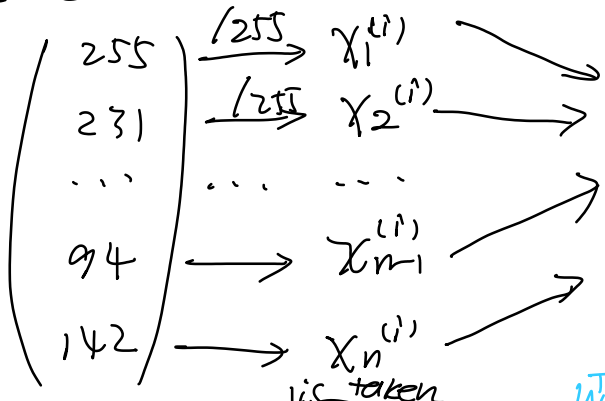
2022年7月9日 星期六 09:39

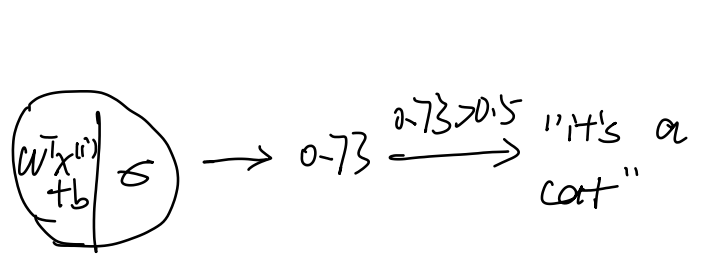
Deep learning Intuition

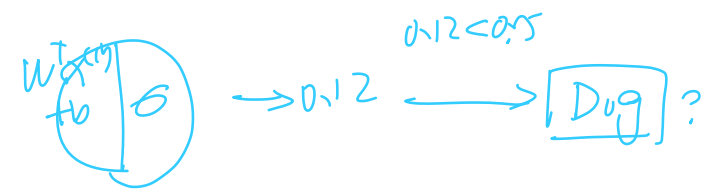
1. input —model→ output
   = Architect + paramaters

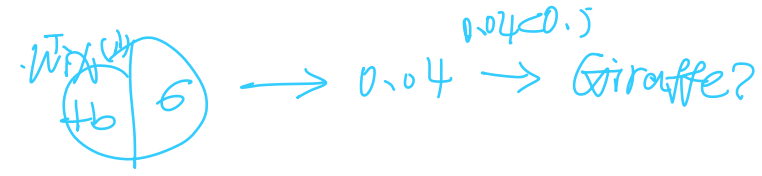
2. eg: judge a cat

photo divided into pixels →









3. judge the photo whether is taken in morning or night.

① Data? 10000 images Split? Bias?

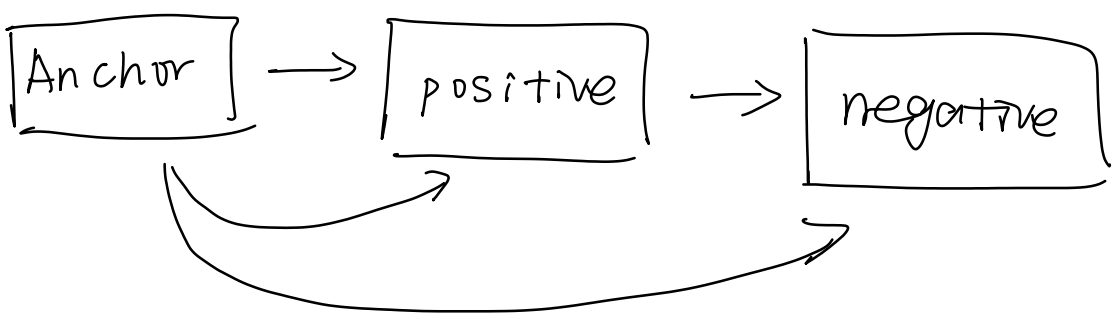
② Input? photo Resolution?

训练集不同分辨率下的 photos

③ Output y=0 or y=1

④ Architecture?

⑤ Loss?



$$L = ||Enc(A) - Enc(P)||_2^2 - ||Enc(A) - Enc(N)||_2^2 + \alpha$$

// 防止第一组数据 0 - 0 = 0 ...

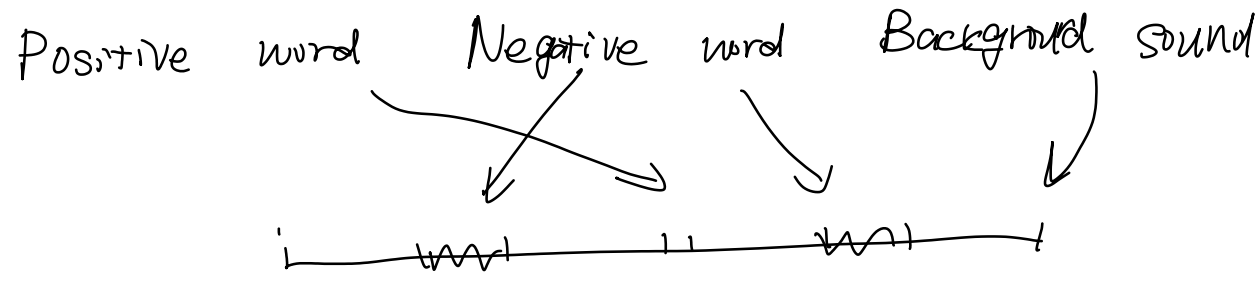
Face Recongnition: K-nearest Neighbors

Art generation (Neural Style Transfer):

$$J = ||Content_C - Content_G||_2^2 + ||Style_S - Style_G||_2^2$$

找到边缘 → gram 矩阵

word detection:



程序自生成样本与自动标记

↳ 录制1个人的 positive & negative words (5个), 再录背景 background

用程序自动生成