面试保密承诺书

本人于 今日 参加 感知阶跃（深圳）数字科技有限 公司 算法工程师（全职/实习）岗位的面试工作，接收到公司关于该岗位相关技术测试的试题文件。本着自愿原则，本人确认并同意，承诺自愿担负起对该岗位测试试题的保密责任，并履行相关的保密义务：

一、保密内容

1. 保密试题题目及相关数据；
2. 保密有关该试题的解决方案及结果；
3. 面试结束后删除试题、相关数据、解决方案及结果。

二、保密范围

本人不会将上述保密内容等信息泄露给除公司面试官以外的其他人员、平台媒介等外部渠道。

三、保密期限

该试题保密时间长久有效。

我已经阅读，并已理解和同意遵守本承诺书的所有条款，如本人违背承诺，愿意承担公司相关的经济处罚和相应的法律责任。

承诺人签字： 日期：

ZMO Deep Learning Task: *Efficient* Fashion Matching

When our customer provides a new fashion image, *i.e.,* a model wearing clothes, we would like to check if we already have images of the same clothes in our database with low cost. To simplify the problem, let's target all the clothes that the person wears. To achieve this, given a fashion image pair, we want a black-box system to tell whether two given images contain the same clothes or not via an **efficient way** (an example is given below).

Figure 1: Fashion matching example.

Task

Your task is to write a neural network to solve this problem. Note that:

- We do not care if the images contain the same person.
- We do not have any assumption about the consumers' images, *e.g.,* the images are not aligned or whiten.
- We do not have any requirements on what methods/frameworks/languages to use. You are free to design the whole pipeline with your ideas.

We do not expect a perfect pipeline with a well-trained model. However, we do expect that given enough time, your model can achieve a good performance in terms of accuracy and run-time. If you do not have time to implement all functions in your pipeline, you can define the function in the code and add some descriptions in the comment.

We care more about:

- How do you define your objective and the pipeline? What part is the most important?
- What methods and techniques do you use and why?
- How do you balance the accuracy and run-time? How do you speed up your code?
- How do you allocate your limited time to attack this task?
- What are the challenges when implementing your pipeline? How do you solve them?

To reflect a normal working environment, there is no restriction on accessing other materials online such as StackOverflow or previous code you've worked on if it helps you with the task. What we ask is that anything that you use or reuse is explicitly referenced - a comment in the code is sufficient for this.

Dataset

For training, you should use the DeepFashion dataset - this is provided in the deepfashion_train_test_256.zip archive. Note that the test set is fixed, but you are allowed to clean/modify the training set if you wish to do so.

Submission

You need to submit your source code files, as well as a ReadMe document. The ReadMe document should describe:

- A brief description of your pipeline.
- How to run your training and test code.
- What reference resources did you use.

You will have 12 hours to implement your pipeline. You are most welcome to submit your work within 8 hours. We're more interested in how did you approach the problem.