DL Engineer Evaluation Task

About SynergyLabs

SynergyLabs is a startup working on providing industry leading solutions for Intelligent Traffic Management, Highway Management, Smart Law Enforcement using computer vision and deep learning. Over last 3 years we have developed solutions for traffic counting and classification, incident detection on highways, identifying traffic offenders (red light jump, no helmet, triple riding etc) and we are continuously developing new and innovative solution in the same area. Some of them require deep expertise in deep learning and others require knowledge of hardware and embedded systems.

The Artificial Intelligence, Computer Vision, Machine Learning and Deep Learning Systems that we implement are proactively aligned with the latest industry requirements. We serve corporations ranging from Startups to Fortune 500 with our algorithms, manpower and design. Our team has 100+ years of cumulative experience in the field of Artificial Intelligence.

Hiring process:

1. Please complete this task and submit as mentioned in the instructions to you, please ensure you submit within the time frame asked, please email if you need extension in time
2. You will be selected for next round based on the task
3. Next Round: Telephonic Round – this is a technical round, you will be assessed on you knowledge. you will be asked questions on programming, data structures and deep learning
4. Final Round: Telephonic Round – this is also a technical round, you will be assessed if you are the right fit for the job.

Task 12:
Problem: Semi supervised annotation

Deep Learning is awesome, it has given wings to computer vision and object detection/classification. But generating enough training data still remains a challenge! it takes countless hours for somebody to manually draw boxes around birds and people so that they can be then used to train the model.
Can you think of a better approach, what if the model is iteratively trained and it helps you during the annotation itself.

Please download a test video from
[https://drive.google.com/drive/folders/1NlGC571Uk05jvGcnH38w6fgLzmLJCKYs?usp=sharing]

What to submit:

a. Source code of your python script (either in email or link to your github repo)
b. Output of your program on the example video provided
c. List of websites/articles which you found helpful while doing your search
d. A small writeup

What not to do:

Please do not copy paste code directly from somebody's repo, you will be disqualified for doing that. If you anyway need to do that, put it in a separate file and provide credit to author and clearly mention it in your writeup