Technical Assessment for AI Scientist (Computer Vision)

Thank you for your interest in working with us at Lauretta.io. We have prepared two questions below for you to test your research and coding skills. We want to understand your approach to the questions and why you select a solution from a plethora of resources available online.

As an AI Scientist in Computer Vision at Lauretta, you will be working on a wide range of AI solutions for real-life applications for security and retail. Hence, your ability to perform in **any ONE** of the tasks below would help us understand your fit for the team, and help you get an idea of the approaches we take at Lauretta.

**Question 1: Video-based Person Re-Identification**

Implement **ONE** video-based Person ReIdentification algorithm on **SINGLE CAMERA** out of anyone from the list mentioned [here](https://paperswithcode.com/task/video-based-person-re-identification) or [here](https://github.com/Mhttx2016/Multi-Camera-Object-Tracking-via-Transferring-Representation-to-Top-View) or [here](https://github.com/KaiyangZhou/deep-person-reid) or [here](https://github.com/layumi/Person_reID_baseline_pytorch) or any other resource you find helpful.You can choose to use pre-trained models / existing codes. Also, mention your reasons for choosing your implementation over the others. Note that the implementation should be replicable and run in real-time.

*Also, something to think about – How do these compare to traditional trackers like FairMOT or DeepSORT?*

You can upload your code, findings, reasons explaining your selection, and results (on any video of your choice) on GitHub and share the link to the repository with us. Make sure to keep the repository public.

**OR**

**Question 2: Video-based Action Recognition**

Implement **ONE** video-based Action Recognition algorithm using any other resource + dataset you find helpful. You can choose to use pre-trained models / existing codes. Also, mention your reasons for choosing your implementation over the others. Note, that the implementation should be replicable and run in real-time.

You can upload your code, findings, reasons explaining your selection, and results (on any video of your choice) on GitHub and share the link to the repository with us. Make sure to keep the repository public.