Twinverse Technology ML Engineer Coding Round 01

Objective

Develop any ONE of the following machine learning estimation models:

- **Lighting Estimation Model (recommended)**
- **Pose Estimation Model**
- **Position Estimation Model**

Task Description

Your model should verify that when the camera is activated, the subject meets the following conditions:

- **Position:** The subject is facing the camera.
- **Pose:** The subject is standing upright with hands relaxed at their sides.
- **Lighting:** The environment is well-lit.

Refer to **Figure 1** for an example of the website UI.

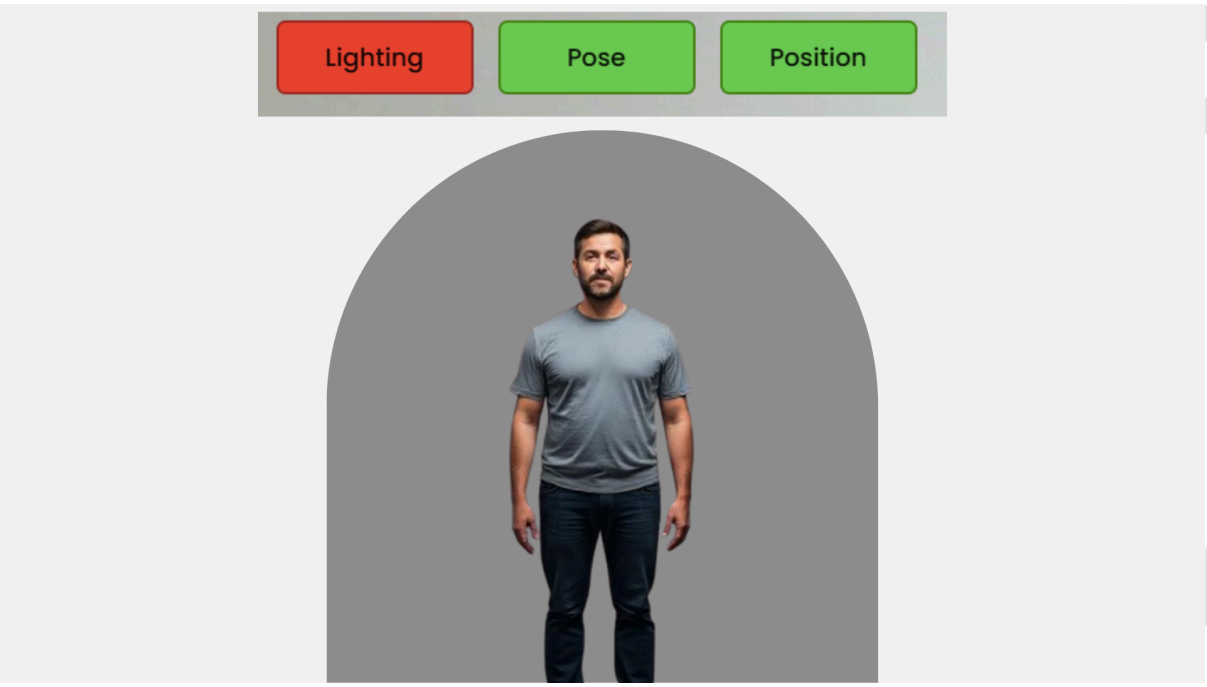

Figure 1

Visual Feedback

Your application should display individual indicator bars for lighting, pose, and position. These bars must reflect whether each condition is satisfied as the subject aligns within the designated area on the webpage. See **Figure 2** for further guidance.

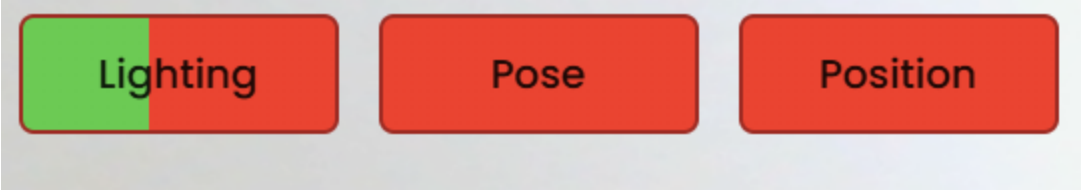

Figure 2

Technical Requirements

You must implement your solution using Python and TensorFlow.js, along with any libraries and frameworks that best support your chosen language.

Submission Guidelines

1. Create a GitHub repository and upload your complete codebase.
2. Include a `README.md` file with detailed instructions on how to run your code, along with sample output images from your development and testing phases.
3. Email the GitHub repository link along with your resume to **hr@twinverse.in**.

Good luck, and we look forward to seeing your innovative solutions!