Idea Proposal

Names of students working in the group:

Nurlan Sultan
Adilkhan Nurmiyashev
Byegarys Byekbolat

Problem or idea description:

Human Pose Estimation
Human Pose Estimation stands as a computer vision challenge where the objective is to pinpoint and recognize body points in images or videos, including joints like shoulders, elbows, wrists, hips, knees, and ankles. The ultimate aim is to construct a model adept at precisely forecasting the spatial configuration of these body elements, effectively capturing the overall pose of an individual.

Background information or solution:

Human pose detection models play a crucial role in computer vision applications, enabling machines to understand and interpret the spatial arrangement of a person's body. The primary goal is to identify key body joints and their connections, providing valuable information for applications such as action recognition and human-computer interaction.

Available solutions with links:

Gupta A. (2021). Human Pose Estimation Using Machine Learning in Python. *Analytics Vidhya*.
https://www.analyticsvidhya.com/blog/2021/10/human-pose-estimation-using-machine-learning-in-python/
Etereo R. (2020). Detecting poses with OpenPose in Google Colab. *Medium*.
https://blog.etereo.io/detecting-poses-with-openpose-in-google-colab-d591dc8d8609

How to get the data?

Datasets:
https://paperswithcode.com/dataset/coco
https://paperswithcode.com/dataset/mpii

Brief description of your solution:

For the development of Human Pose Estimation, our solution involves using Google Colab with Python as the programming language. Specifically, we are considering the utilization of the OpenPose open-source computer vision library to enhance the accuracy and efficiency of our model.

Tech stack that will be used:

Google Colab, Python.
Any information you find necessary: