Instructions for using the PoseLift dataset to train anomaly detection models

The JSON files are used for training anomaly detection models. The key difference between the pickle (.pkl) files and JSON files is in their structure. The .pkl files contain raw pose sequence data, where keypoints are embedded within frames. We extracted keypoints for each detected person, organized them by person ID and frame number, and then saved the structured data in JSON format, making it suitable for use in anomaly detection models.

Steps for Using the PoseLift Dataset and Training Anomaly Detection Models:

-Download the JSON format of the PoseLift dataset (Json_files).

-Download the STG-NF folder, which contains the STG-NF model and training scripts.

-Place the JSON format of PoseLift inside the STG-NF directory.

-Install the required dependencies and set up the appropriate environment.

-Run the training script: python train_eval.py

These steps trains the STG-NF model using the structured JSON data. It is worth noting that the training set does not require labels since this model follows an unsupervised training approach.

Dataset Visualization:

Use the visualization.py script to generate images from the JSON file for each frame of a detected person. The script then creates a video based on these frames for better visualization of the dataset.

For any questions, feel free to email nrashvan@uncc.edu. If you find this repository helpful, please cite us.