Project Information

The project relies on a single external library dependency, namely OpenCV. It leverages various functionalities of OpenCV, such as video input/output and the DNN module for model inferences. To ensure optimal CPU performance, the project adopts the MobileNetV3 model for efficient person detection, and Google Mediapipe's person landmark detection for accurately identifying landmarks. This landmark detection method proves highly efficient on CPU-based inferences, outperforming other available models.

Unlike Google Mediapipe's pose detection, which involves computationally intensive post-processing, this project prioritizes performance and thus avoids its usage. Additionally, the decision to utilize MobileNetV3 over YoloV8 is due to MobileNetV3's superior CPU performance, which surpasses YoloV8's performance on the same hardware.

By exclusively relying on OpenCV as the project's sole dependency, it maintains a lightweight profile. This design not only simplifies the project's build process but also enhances its usability, making it an efficient solution for various applications.