

Here's the explanation for the requested points:

a) **The model you used and why**

I used MediaPipe's Pose model because it provides real-time, accurate 2D pose estimation with a lightweight architecture, making it suitable for efficiently processing video frames. Its robust performance across various human poses makes it ideal for analyzing motion in sports activities.

b) **The metric you computed**

I computed the arm angles by measuring the angle formed at the elbow using the shoulder-elbow and elbow-wrist segments as vectors.

To calculate the arm angles, I first extracted the 2D coordinates of the shoulder, elbow, and wrist landmarks for both arms using MediaPipe's pose estimation. I then used the cosine rule to compute the angle formed at the elbow by treating the shoulder-elbow and elbow-wrist segments as vectors. The resulting angles were then overlaid on the images for visualization.

c) **The numeric result**

The left arm angle decreased from approximately 170° to 105° during the golf swing.

d) **Your brief interpretation**

The decreasing arm angle indicates the golfer's arm bending during the downswing, which is a critical motion for generating power and maintaining control in the golf swing.