

3D Human Pose Estimation from a Single Camera

Two-step process:

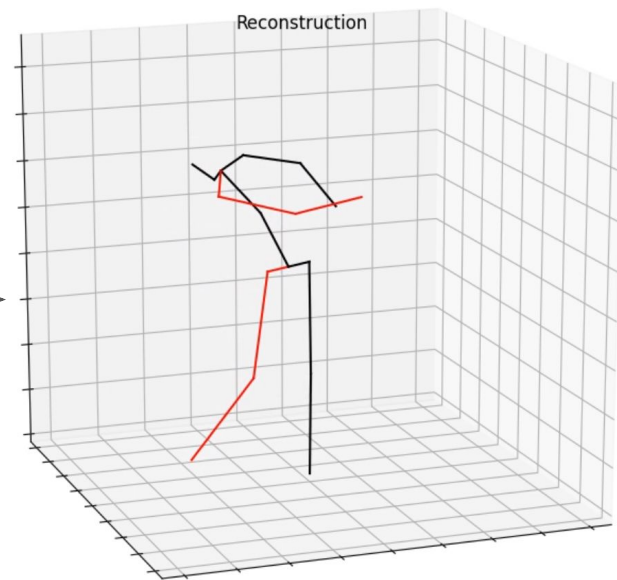
1. Estimate keypoints in image space
2. Map image keypoints to 3D camera space



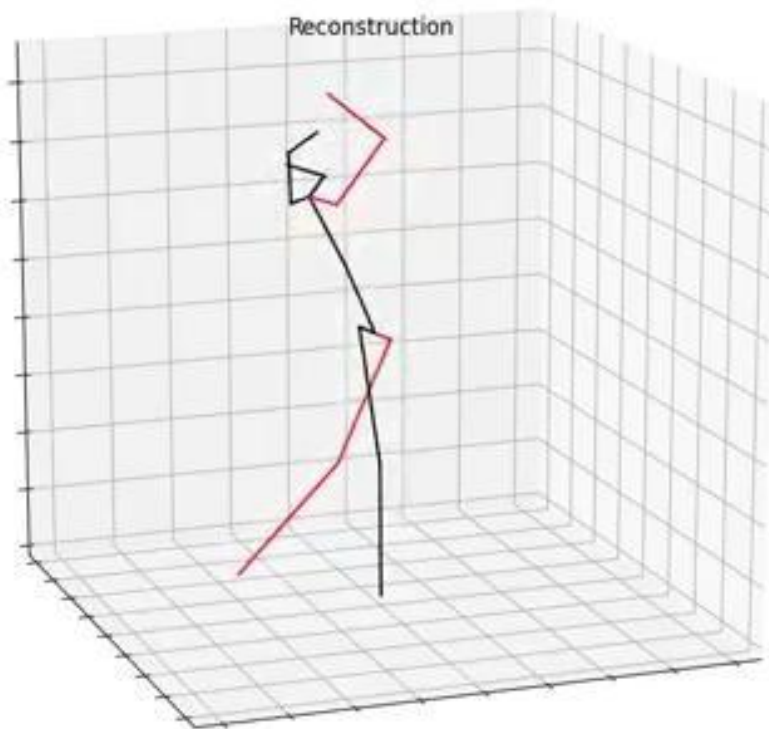
1



2



Face-On

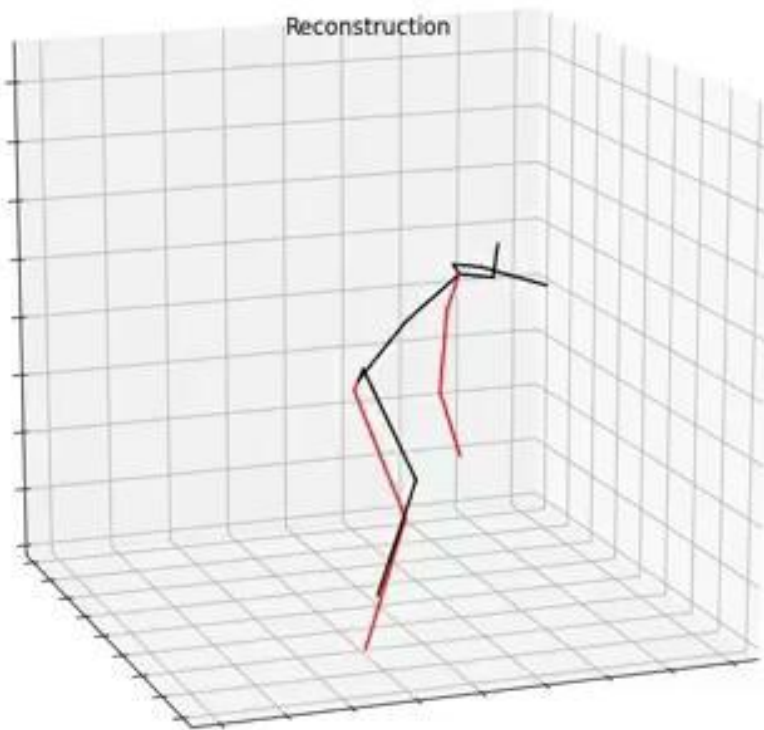


Down-the-line

Input



Reconstruction



Data Requirements

- Golf swing motion capture dataset
 - Markered motion capture system (e.g., Vicon)
 - Club tracking?
 - Multiple calibrated + synchronized video cameras
 - Intrinsic camera parameters: focal length, principal point, tangential and radial distortion
 - Extrinsic camera parameters: position, orientation
 - Multiple participants (golfers)
- Image keypoint annotations
 - Manual annotation of golf swing images