

Using Richer Models for Articulated Pose Estimation of Footballers

Supplementary materials

Figure 1 shows a set of results of running our model on KTH multiview football dataset (The dataset is available online on author's website). The double counting problem in many cases is fixed both because of extra deformation factors, and using the foreground/background colour distribution. Our method fails when these extra information are still not enough to determine the correct pose (e.g. the bottom row), or in cases where the correct pose is not between top 1000 FMP configurations (e.g. third row).

Figure 2, and 3 show the end results from the 3D reconstruction procedure along with back projected 2D estimates. Note that to do 3D reconstruction we need to put limbs in correspondence, since left/right order of limbs are not distinguished by the 2D pose estimation process. To do this we do an exhaustive search over all possible flipping of limbs, and choose the one which produces the most plausible 3D pose. Since we are not using any temporal constraints over the location of camera, or body joints, this process can be highly unstable. However with good enough 2D estimates we still can get fairly accurate 3D reconstruction.



Figure 1: This figure shows (a) the result of FMP compared to (b) our reranking function, in addition to (c) the results of picking the closest configuration to the ground truth from a set top 1000 configurations.



Figure 2: Result of 3D reconstruction of the body joints computed from the top scoring 2D configurations, along with the back projected 2D estimates.

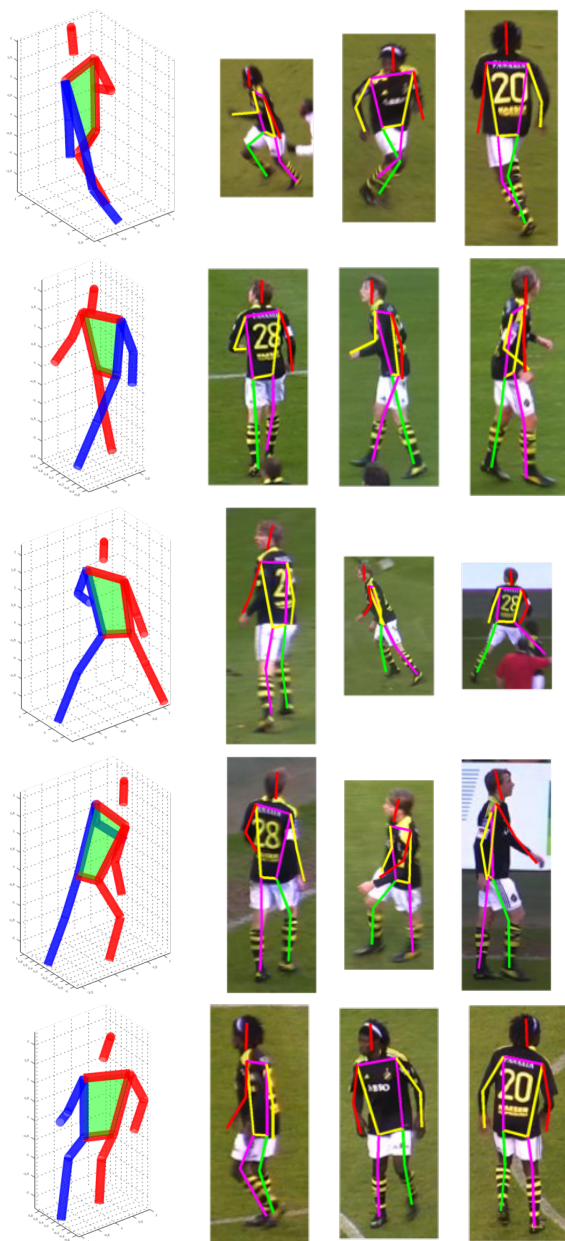


Figure 3: Result of 3D reconstruction of the body joints computed from the top scoring 2D configurations, along with the back projected 2D estimates.