











### **4.3. Hand On Thigh and Arm Blocking Back**

At present we have no plans to include the detection of these conditions as part of CHECKER, but it may be included in future iterations. Before doing so we would need to develop a pose guidance algorithm using the detector during the side view. This development would likely have a few testing and tweaking iterations. The voice prompt accompanying detection would need to be short but also descriptive enough to explain the issue. Since this scan error is more complex than the previous ones, this would be no easy task.

## **5. Summary**

Here we have described our CHECKER system for real-time scan error correction in its current pre-deployment state. We have summarized our normal scanning process for context and examined some scan errors ('Feet Cut Off', 'Baggy Shirt', 'Baggy Pants', 'Hand On Thigh', and 'Arms Blocking Back') that sometimes occur. For each of these scan errors we have provided what we can of our detector development process including data collection, annotation, and thresholding. We presented our results from our detector validation for each considered scan error. Finally, we presented our plans for the UX that will accompany CHECKER. We have plans to extend the number of scan errors handled by CHECKER in the future to include pose errors (probably beginning with 'Hand On Thigh' and 'Arms Behind Back'), clutter, hair issues (down on the neck rather than tied up), and sub-optimal lighting.