NII International Internship program

Segmented Fusion

Bounding-Boxes

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Summary

- Previously
  - Co-Fusion
  - Get overlapping vertices
- Progress
  - Co-Fusion: GPU doesn't meet the minimal requirement
  - Bounding-boxes: reshape the bounding-boxes in the 1st frame to let the surface fit between two body parts

[1] Rünz, Martin, and Lourdes Agapito. "Co-fusion: Real-time segmentation, tracking and fusion of multiple objects." *Robotics and Automation (ICRA), 2017 IEEE International Conference on*. IEEE, 2017.

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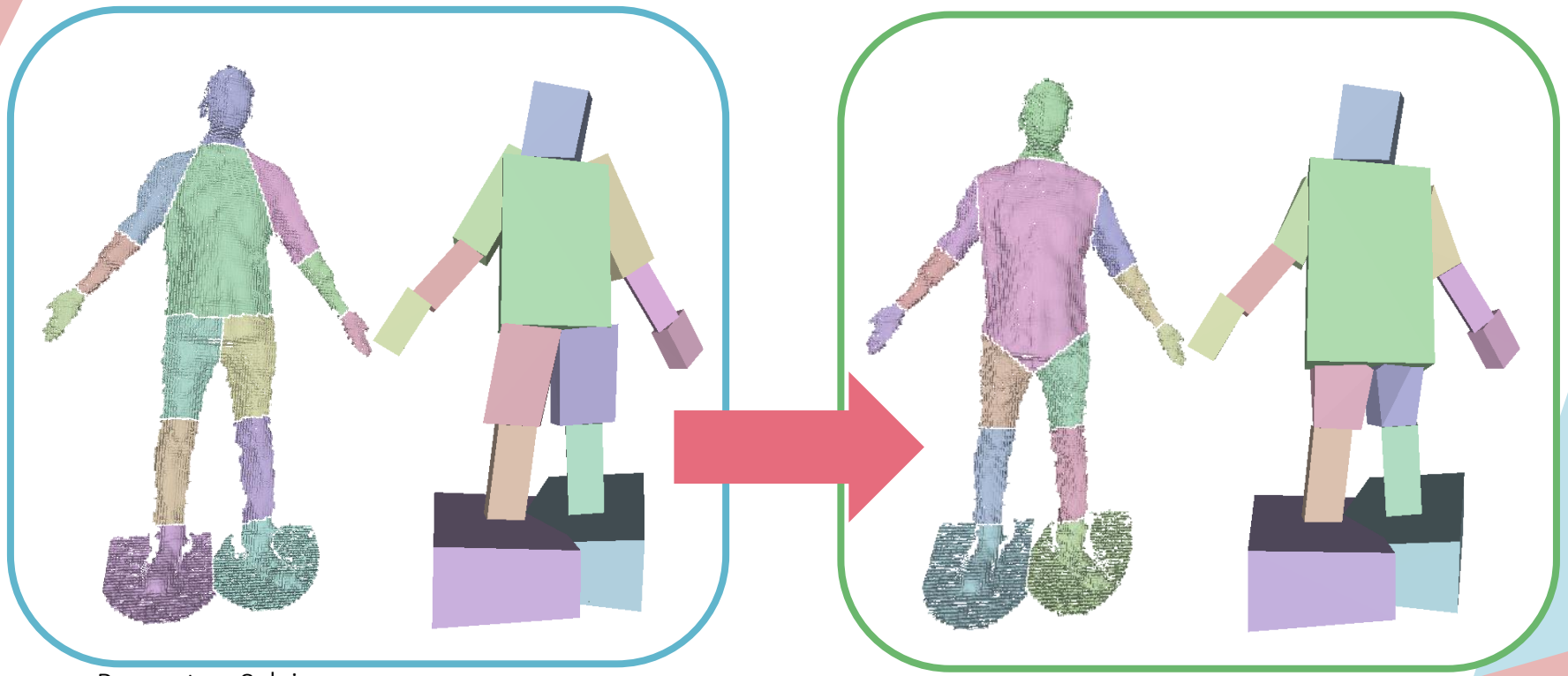
Bounding-boxes

- Since the shapes of upper arm and thigh are not perfect cuboid, I modified the Segmentation to change the shape of these two parts.



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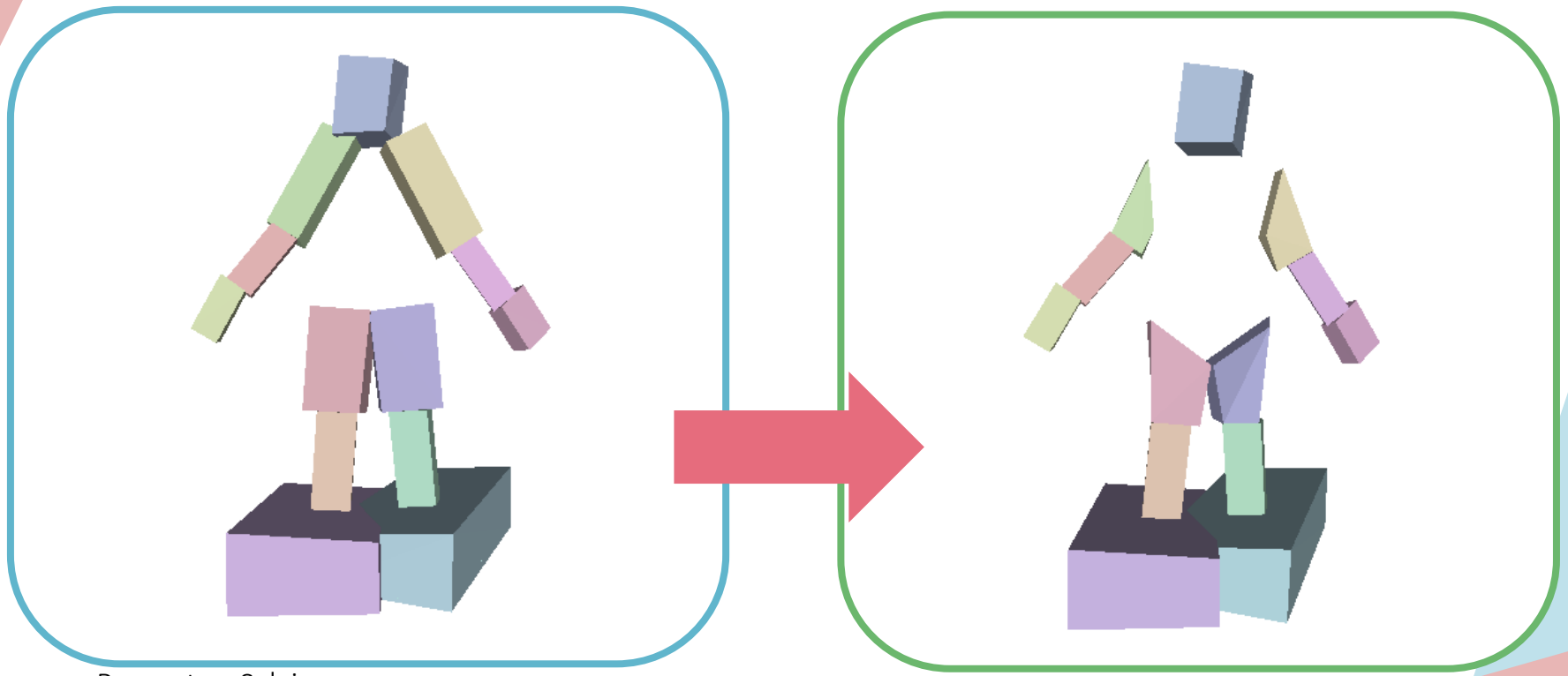
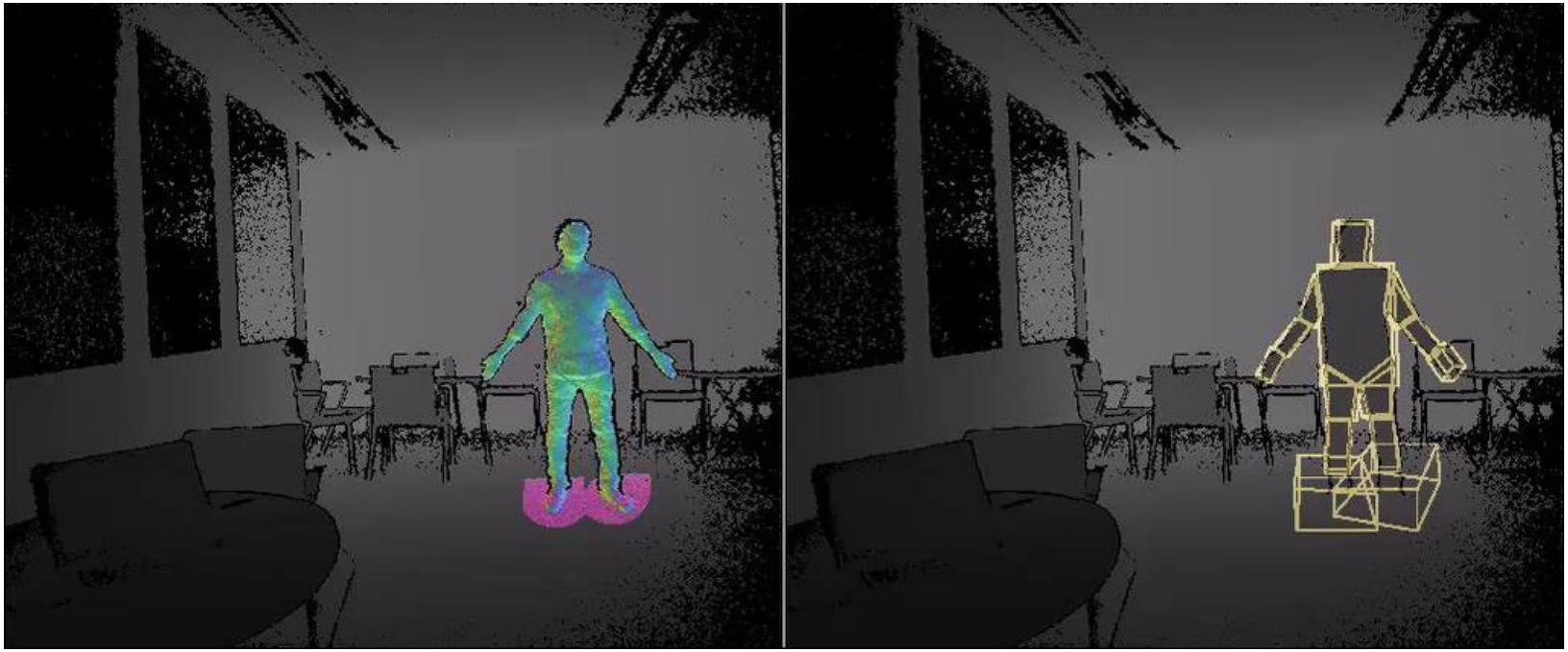


Video

- The bounding-boxes and mesh result



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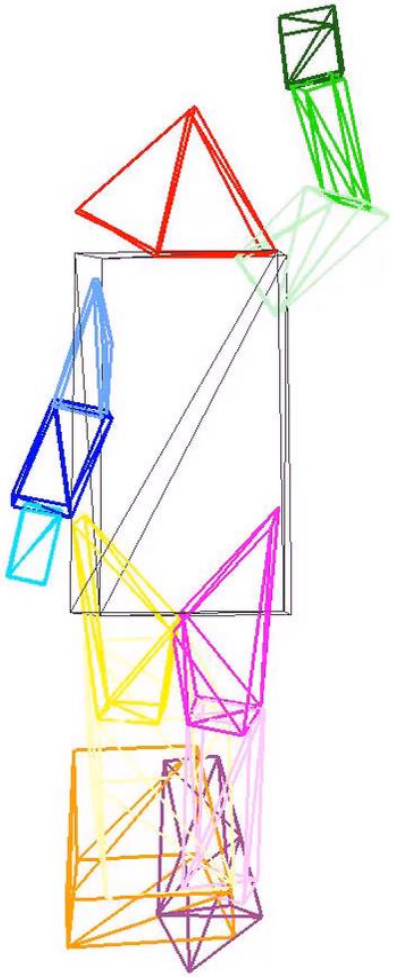
Video

- Another example



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Next step

- Deform the bounding-boxes when tracking