Capsuled 3D Human Pose Estimation with Potential to Generalize to multiple Human Pose Estimation

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Abstract

Human pose estimation from 3-D images involes explicit separation of human pose from the background image and is therefore difficult to generalize to images with multiple humans. In this paper, we propose a CapsuleNet-based neural network architecture that can potentially generalized to multiple-human pose estimation. Our network utilizes the well-known equivariance properties of CapsuleNet so as to estimate the subtle local change of pespective in its effect on human pose. Moreover, our network architecture using similar amount of GPU storage has achieved competing performance in key criterions compared with the network architecture proposed by [Rhodin et al.(2018)Rhodin, Salzmann, and Fua] in H3.6M dataset. Our next step yet to complete is to generalize this method on mulitple human-pose estimation.

1. Introduction

2. Related work

3. Method

4. Discussion

5. Conclusion

References

[Rhodin et al.(2018)Rhodin, Salzmann, and Fua] Helge Rhodin, Mathieu Salzmann, and Pascal Fua. Unsupervised geometry-aware representation for 3d human pose estimation. In *The European Conference on Computer Vision (ECCV)*, September 2018.