

EgoCap: Egocentric Marker-less Motion Capture with Two Fisheye Cameras

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Database available

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Contributions

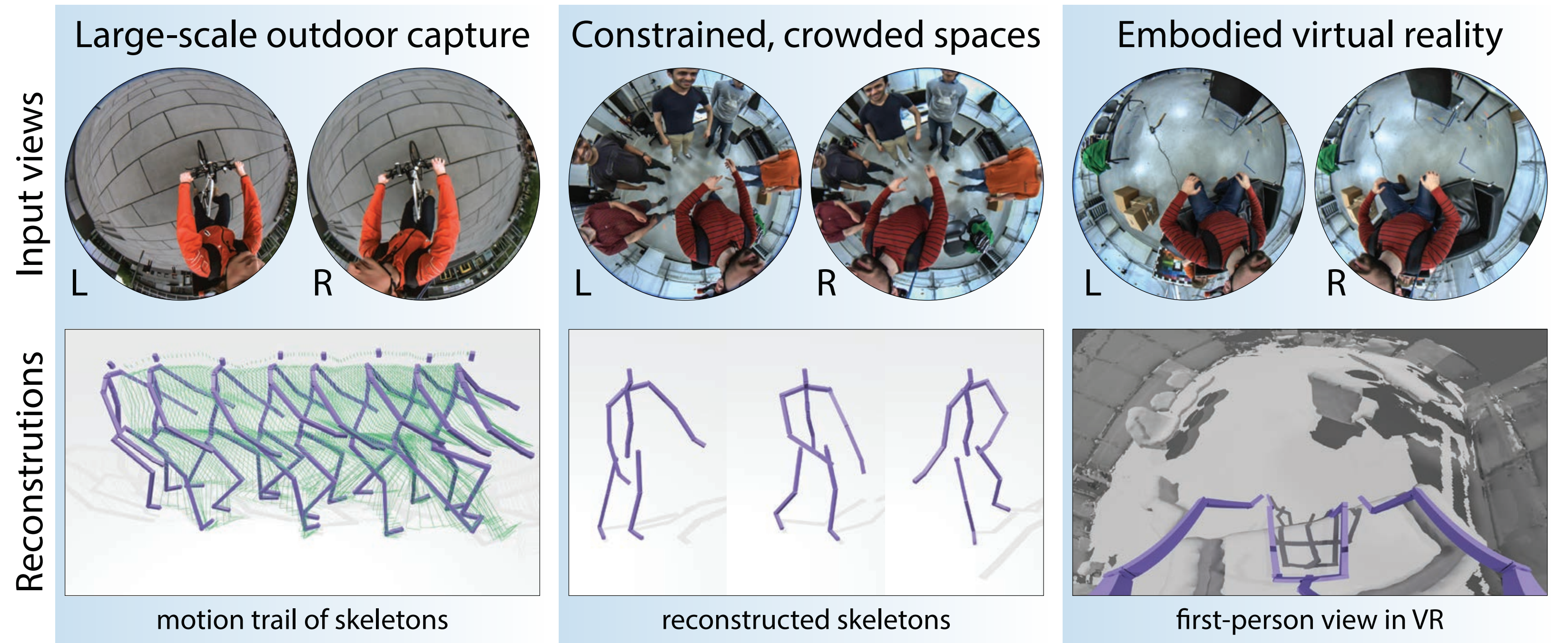
- Egocentric inside-in camera rig
- Motion capture algorithm (generative + discriminative)
- Automatic database (annotation & augmentation)

Advantages

- Free roaming
- Succeeds in crowded scenes
- Easy to use, little intrusion

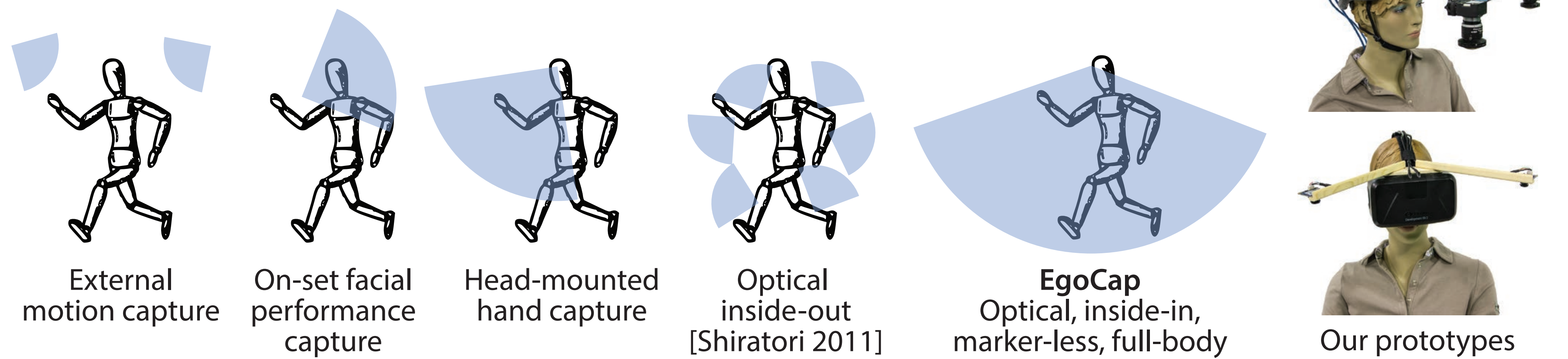


EgoCap motion-capture applications

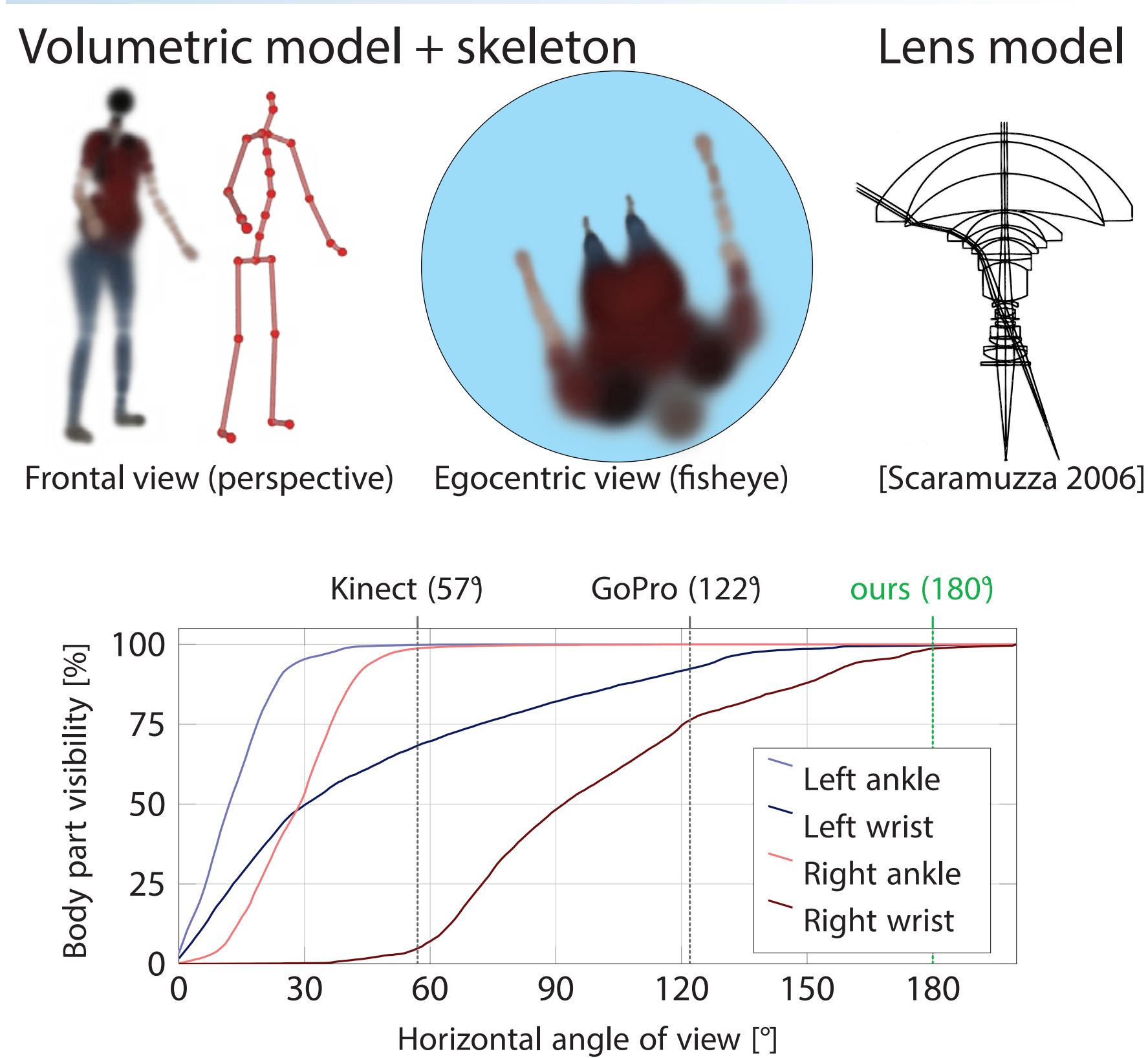


Capture approaches

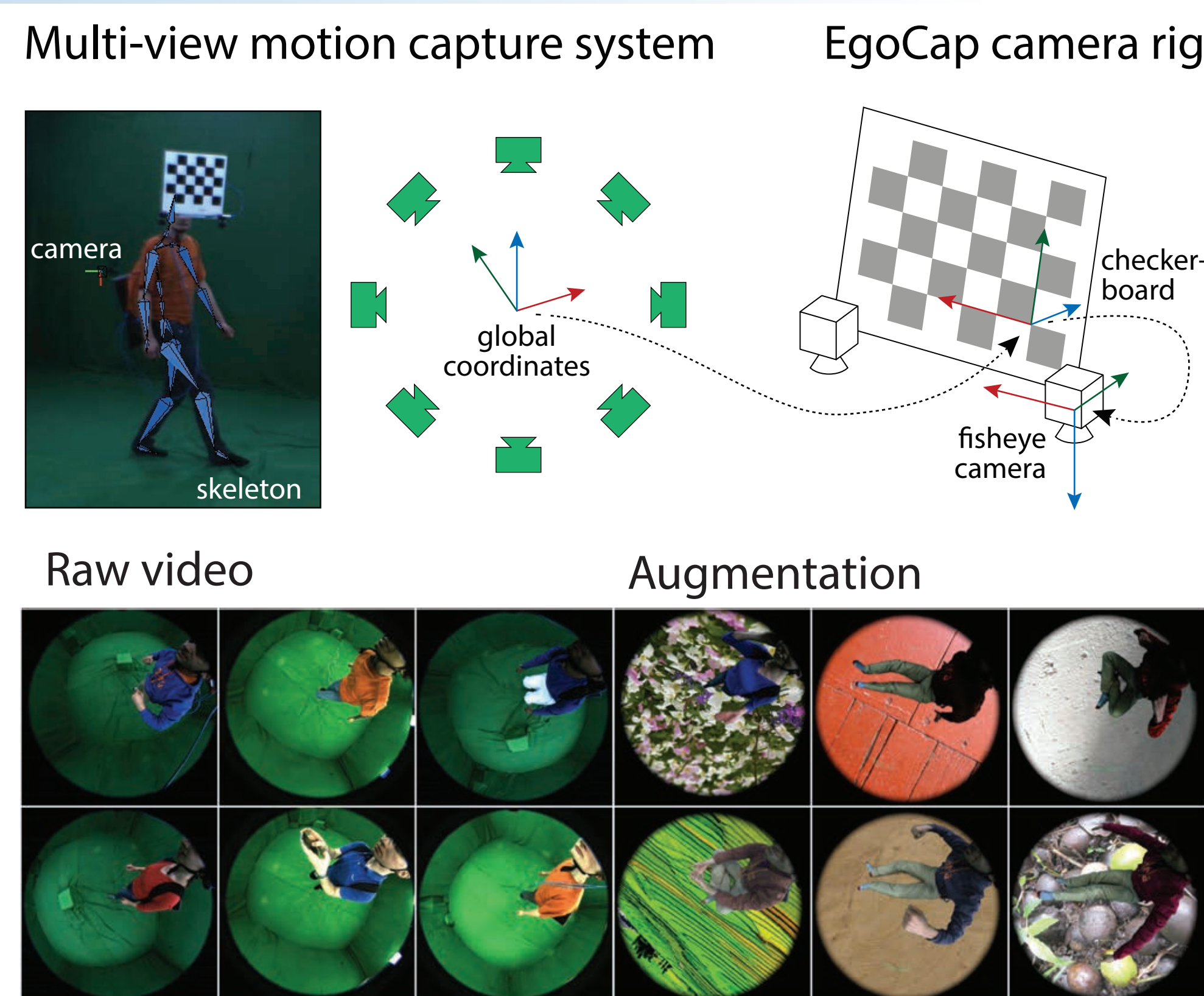
- Inside-in, outside-in, inside-out
- Optical, accelerometer, exoskeleton
- Head-mounted, external, suit-based
- Full-body pose, hands, faces, surface
- Marker-less, active or passive markers



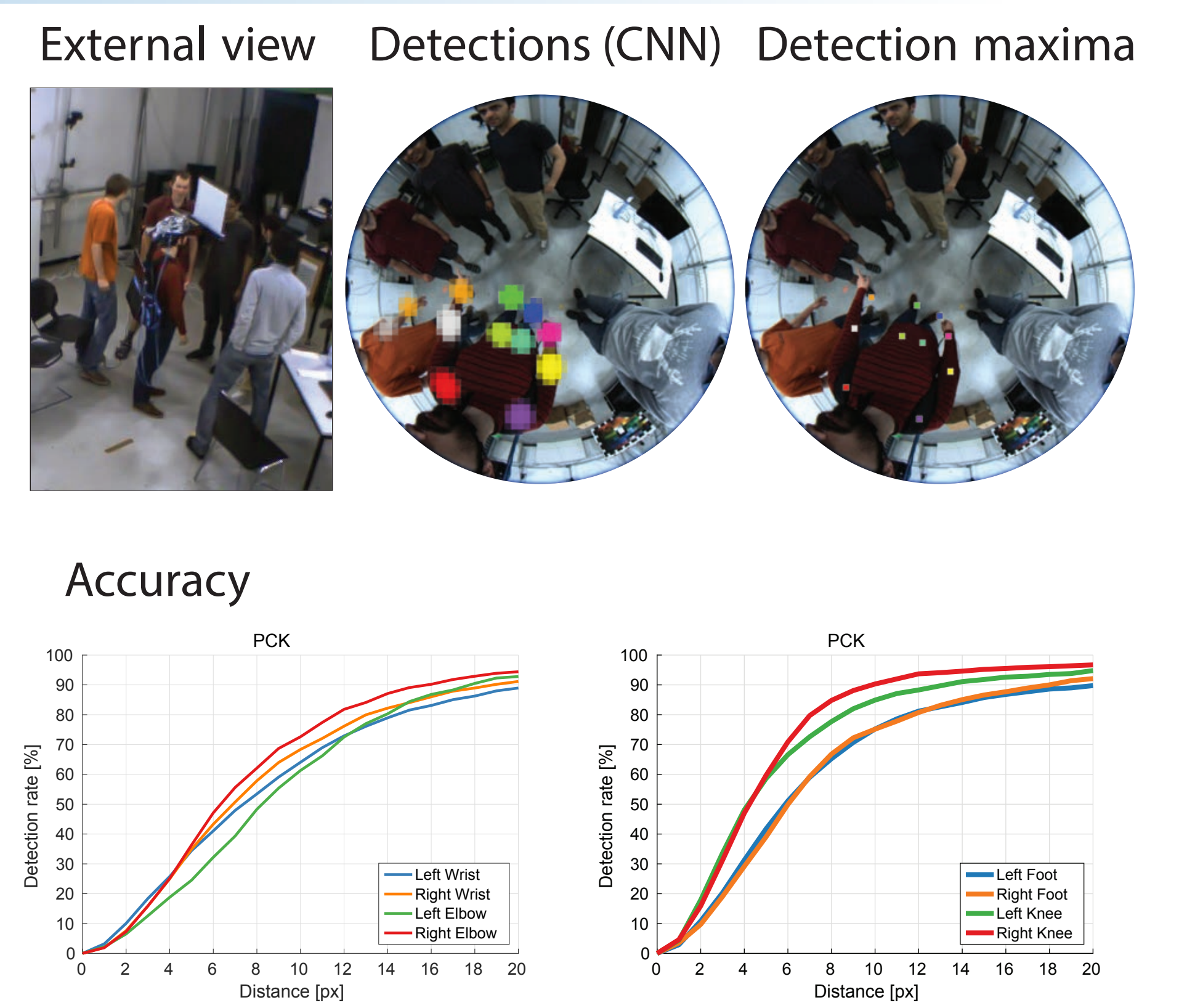
Generative model



Database creation

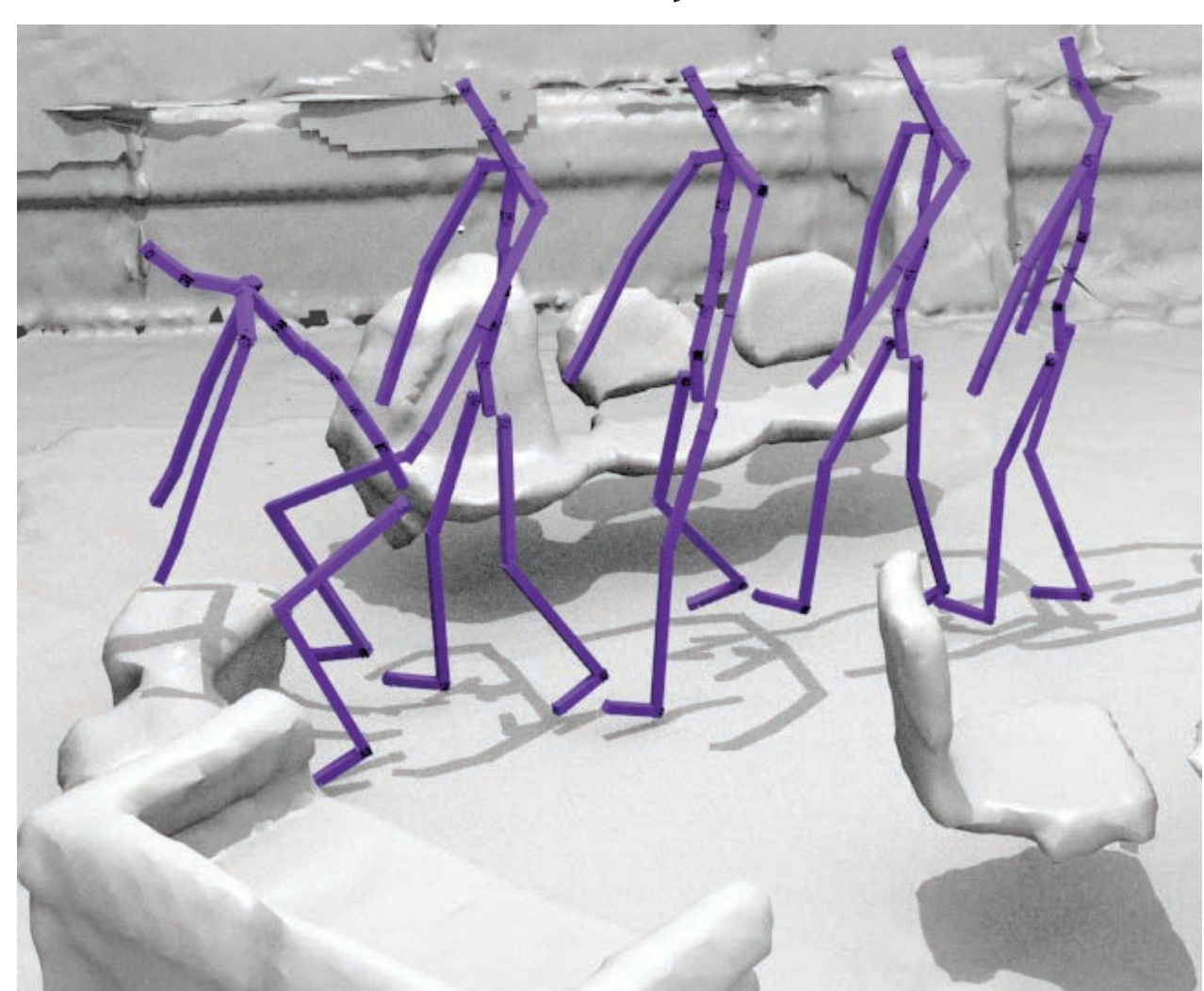


Discriminative model

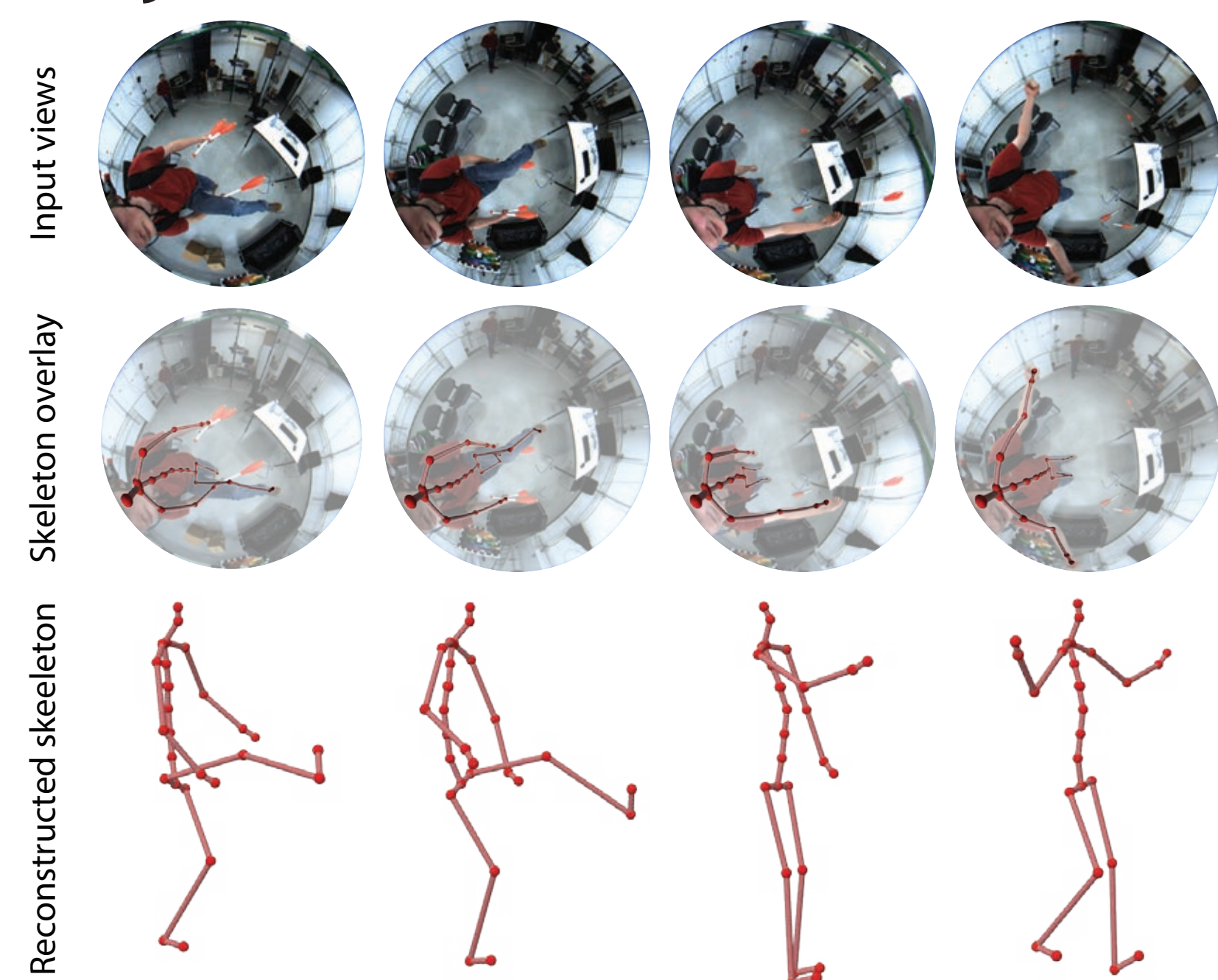


Results

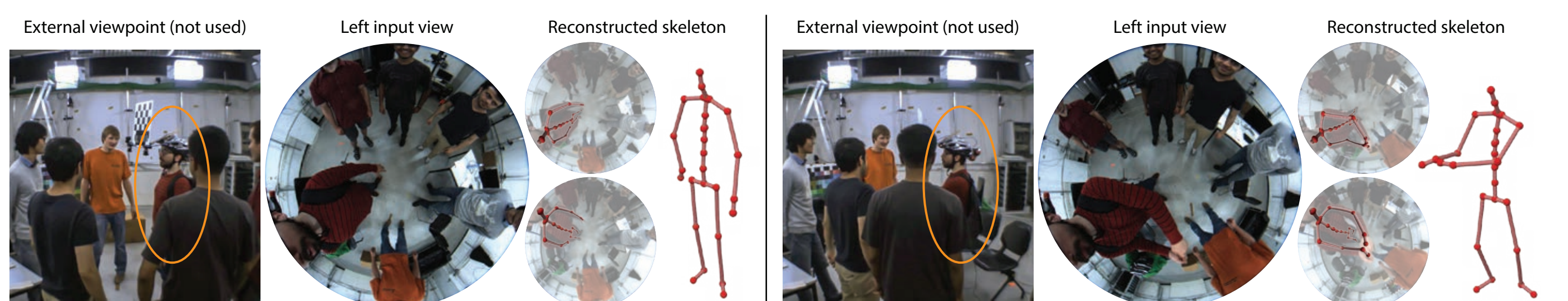
Virtual reality



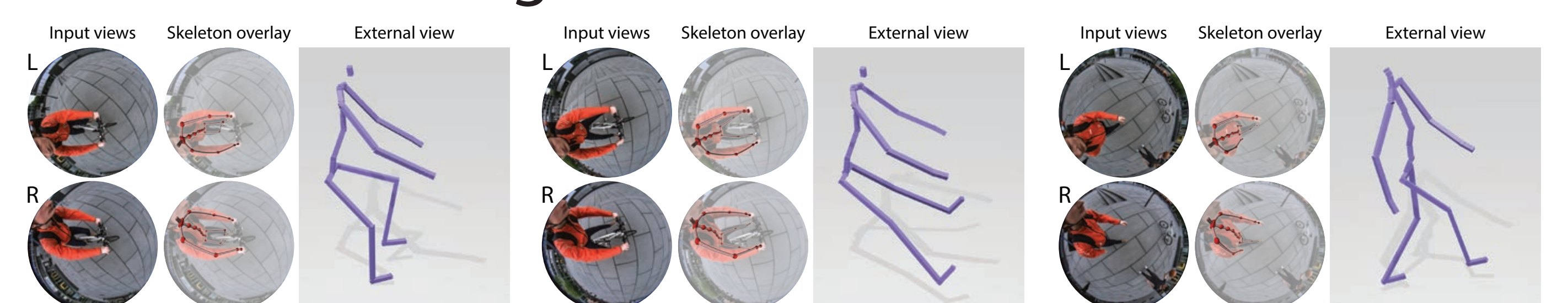
Object interaction



Crowded and confined scenes



Outdoor and large scale



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Project page: gvv.mpi-inf.mpg.de/projects/EgoCap

Database: gvvperfcap.mpi-inf.mpg.de