

# Learning Generative 3D Models of Humans in Clothing & Perceiving Humans from Visual Data

Postdoc and PhD positions in Computer Vision - Machine Learning - Computer Graphics

The Real Virtual Humans Group at the Max Planck Institute for Informatics and Saarland Informatics Campus is looking for highly motivated PhDs and Postdocs to work on fundamental research at the intersection of Computer Vision, Machine Learning and Computer Graphics.



**Generative Models of 3D Humans in Clothing:** In a world that is shifting towards the digitization of everything, we need efficient ways to digitize humans. Digital human models should be compact, easy to use, and should look and move like real people. We investigate techniques in Machine Learning, Computer Vision and Computer Graphics to *learn* generative 3D models of people from visual data (3D/4D scans, videos, images) of *real humans*. Currently, we give special emphasis on learning models of clothing, which is one of the main missing components in current statistical models.

**Perceiving Humans from Visual Data:** Most research in this area has focused on recovering coarse representations of humans based on keypoints or stick figures. Instead, we focus on the recovery of detailed 3D digital humans, including clothing, from images and videos. To address this challenging problem, we investigate ways to combine deep learning methods with generative body models and optimization. The final goal is teaching machines to see and perceive people like we do.

**Max Planck Institutes (MPI)** are internationally renowned and the foremost institution for basic research in Germany. The Max Planck Society is one of the leading research organizations world-wide.

**Application:** If you find these areas exciting, see <https://virtualhumans.mpi-inf.mpg.de/jobs.html> for information on the requirements and how to apply for a position in our group. Positions are **funded**.

**More information:** <https://virtualhumans.mpi-inf.mpg.de>.