Hugo Bertiche

hugo_bertiche@hotmail.com

https://hbertiche.github.io

scholar.google.es/citations?user=vF8Ef0MAAAAJ

LANGUAGES

Spanish ★★★★★

Catalan: ★★★★★

English: ★★★★★

DEEP LEARNING SKILLS

Generative Models

Human Behaviour

Human Pose and Shape

Human 3D Clothing

Image processing **3D Vision**

Computer Graphics

Unsupervised learning

COMPUTING SKILLS

Parallel Computing

MatLab **Python** **C++**

Optimization

TensorFlow **PyTorch**

Blender **3D Rendering**

Physically Based Simulation

MEMBERSHIPS

- Human Pose Recovery and Behaviour Analysis
- University of Barcelona
- Computer Vision Center

Work experience

ADOBE RESEARCH @Intern
JUL 2022 - OCT 2022
Research internship as part of my PhD. Research and development of novel approaches based on deep learning algorithms.

DISNEY RESEARCH STUDIOS @Intern
OCT 2021 - FEB 2022
Research internship as part of my PhD. Research and development of novel approaches based on deep learning algorithms.

HEMAV S.L. @I+D
SEP 2013 - JUN 2014
Design and implementation of Ranger Drone. An UAV provided with RGB and thermal cameras for surveillance and detection of poachers through Computer Vision at Kruger's National Park, South Africa.

Education

P.H.D. IN MATHEMATICS AND COMPUTER SCIENCE
APR 2018 - NOW @UB
Focused on analysis Human-Centric scenarios through deep learning. Advisor Sergio Escalera (www.sergioescalera.com)

MASTER ON ARTIFICIAL INTELLIGENCE @UPC
SEP 2015 - JUN 2017
Master's degree on Artificial Intelligence at UPC, UB & URV.

AERONAUTICAL ENGINEERING DEGREE @UPC
SEP 2011 - JUN 2015
Degree on aeronautical engineering at UPC.

Publications

Hugo Bertiche, Meysam Madadi, and Sergio Escalera. 2021. PBNS: physically based neural simulation for unsupervised garment pose space deformation. ACM Trans. Graph. 40, 6, Article 198 (December 2021), 14 pages. DOI:https://doi.org/10.1145/3478513.3480479
Code: https://github.com/hbertiche/PBNS/
Video: https://youtu.be/ALwhjm40zRg

Bertiche, H., Madadi, M., Tylson, E., & Escalera, S. (2021). DeePSD: Automatic deep skinning and pose space deformation for 3D garment animation. In Proceedings of the IEEE/CVF International Conference on Computer Vision (pp. 5471-5480).
Code: https://github.com/hbertiche/DeePSD/

H. Bertiche, M. Madadi and S. Escalera, "Deep Parametric Surfaces for 3D Outfit Reconstruction from Single View Image," 2021 16th IEEE International Conference on Automatic Face and Gesture Recognition (FG 2021), 2021, pp. 1-8, doi: 10.1109/FG52635.2021.9667017.

Madadi, M., Bertiche, H., Bouzouita, W., Guyon, I. & Escalera, S.. (2021). Learning Cloth Dynamics: 3D+Texture Garment Reconstruction Benchmark. Proceedings of the NeurIPS 2020 Competition and Demonstration Track, in Proceedings of Machine Learning Research 133:57-76 Available from https://proceedings.mlr.press/v133/madadi21a.html.

Meysam Madadi, Hugo Bertiche, and Sergio Escalera, Deep unsupervised 3D human body reconstruction from a sparse set of landmarks, Int J Comput Vis 129, 2499–2512 (2021). https://doi.org/10.1007/s11263-021-01488-2.

Bertiche, H., Madadi, M., & Escalera, S. (2020, August). CLOTH3D: Clothed 3D Humans. In European Conference on Computer Vision (pp. 344-359). Springer, Cham.
Dataset: http://chalearnlap.cvc.uab.es/dataset/38/description/

Madadi, M., Bertiche, H., & Escalera, S. (2020). SMPLR: Deep learning based SMPL reverse for 3D human pose and shape recovery. Pattern Recognition, 107472.