



Hugo Bertiche

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🌐 <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

Physics simulation



MEMBERSHIPS

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



Work experience

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.

LIGHTSTONE S.L. @DataAnalyst

SEP 2016 - FEB 2017

Consultant for Naturgy (main spanish electric company). Clients clustering by power consumption curve through Machine Learning algorithms. Technical solutions for products in renewable energies.

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

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.