ÒSCAR LORENTE COROMINAS

Barcelona, Spain   (+34) 684 083 678   oscarlorente.github.io

@ oscar.lorente.co@gmail.com   linkedin.com/in/lorenteoscar   github.com/oscarlorente

EDUCATION

M.Sc. in Computer Vision   Oct 2020 - Sept 2021
Universitat Autònoma de Barcelona - Computer Vision Center, Barcelona, Spain
9.47/10 - Top 1 Student Award

B.Sc. in Telecommunications Technologies and Services Engineering   Sept 2016 - July 2020
ETSETB - Universitat Politècnica de Catalunya (UPC), Barcelona, Spain
9.10/10 in the Audiovisual Systems major

WORK EXPERIENCE

Research Intern at **IRI, CSIC - UPC**, Barcelona, Spain   May 2021 - Present
Exploring the contribution of parametric models and attention mechanisms in Implicit
Differentiable Renderer (IDR) for multi-view 3D human reconstruction.

Research Intern at **CD6 - UPC**, Barcelona, Spain   Oct 2020 - Apr 2021
Implemented a pipeline to semi-automatically annotate pedestrians in 3D point clouds
by exploiting registered and synchronized RGB images and LIDAR point clouds.

Computer Vision Engineer at **Beamagine S.L.**, Barcelona, Spain   Feb 2020 - July 2020
Adapted and trained a deep learning model to classify pedestrians in LIDAR point clouds
using 3D clusters obtained by projecting 2D labels.

SQL Developer at **Accenture**, Barcelona, Spain   July 2018 - Nov 2018
Analyzed and solved problems related to SQL database management.

PROJECTS

Multi-view 3D People Reconstruction (2021)   dissertation
Combined parametric models with implicit neural representations and differentiable rendering to
obtain watertight 3D reconstructions of human bodies using weak 2D supervision.

Video Surveillance for Road Traffic Monitoring (2021)   arXiv / code
Solution to the third track of the Nvidia AI-City Challenge: designed a system using siamese
networks and metric learning to perform multi-target multi-camera tracking.

Image Classification with Classic and Deep Learning Techniques (2020)   arXiv / code
For the image classification task: compared classic computer vision techniques (e.g. bag of visual
words with SVM) with deep learning models, including our own architecture.

Ultrasound-Machine Simulator, Fetal Medicine Barcelona (2019)
Built an ultrasound-machine simulator for medical personnel training purposes using a smart-
phone to emulate the ultrasound probe and a computer for visualization.

SKILLS

Languages: Python, C++, Matlab, C, Java, SQL
Frameworks and Tools: PyTorch, ROS, Git, Blender, LaTeX, Anaconda, Tensorflow
Libraries: OpenCV, Numpy, Scikit-learn, Trimesh, Open3D, PCL, Detectron2, Pandas