

ÒSCAR LORENTE COROMINAS

📍 Barcelona, Spain ☎ (+34) 684 083 678 ⓘ oscarlorente.github.io
@ oscar.lorente.co@gmail.com in linkedin.com/in/lorenteoscar 🔄 github.com/oscarlorente

EDUCATION

CURRENT	Master's Degree, Computer Vision
OCT 2020	Universitat Autònoma de Barcelona - Computer Vision Center , Barcelona, Spain
JULY 2020	Bachelor's Degree, Telecommunications Technologies and Services Engineering
SEPT 2016	ETSETB - Universitat Politècnica de Catalunya (UPC), Barcelona, Spain <i>Majored in</i> AUDIOVISUAL SYSTEMS

WORK EXPERIENCE

CURRENT	Research Intern at IRI, CSIC - UPC , Barcelona, Spain
MAY 2021	Dr. Francesc Moreno-Noguer , Perception and Manipulation Group Exploring Implicit Differentiable Renderer (IDR) in multiview 3D surface reconstruction of human bodies.
APR 2021	Research Intern at CD6 - UPC , Barcelona, Spain
OCT 2020	Dr. Josep Ramon Casas , Image Processing Group (GPI) Developed a pipeline to semi-automatically annotate pedestrians in 3D point clouds by exploiting registered and synchronized RGB images and LIDAR point clouds.
JULY 2020	Computer Vision Intern at Beamagine S.L. , Barcelona, Spain
FEB 2020	Dr. Santiago Royo Royo , CD6 and Beamagine Designed and implemented a <i>PointNet++</i> based architecture to classify pedestrians in LIDAR point clouds using 3D clusters obtained by projecting 2D labels.
NOV 2018	SQL Developer at Accenture , Barcelona, Spain
JULY 2018	Analyzed and solved problems related to SQL database management.

PROJECTS

APR 2021	Video Surveillance for Road Traffic Monitoring	arXiv / code
FEB 2021	Solution to the third track of the AI-City Challenge, in which we perform multi-target multi-camera tracking using siamese networks and metric learning.	
APR 2021	Scene Understanding for Autonomous Driving	arXiv / code
FEB 2021	Study of the behaviour of different configurations of RetinaNet, Faster R-CNN and Mask R-CNN (Detectron2) by a qualitative and quantitative evaluation on KITTI-MOTS, MOTSCheck and out of context datasets.	
FEB 2021	3D Recovery of Urban Scenes	slides / code
DEC 2020	3D reconstruction of buildings from a set of images taken from different points of view (frontal images of the façades and aerial images), either using calibrated or uncalibrated cameras (SfM).	
FEB 2021	Image Classification with Classic and Deep Learning Techniques	arXiv / code
DEC 2020	Image classifier using both classic computer vision techniques (Bag of Visual Words classifier using SVM) and deep learning techniques (MLPs, InceptionV3 and our own CNN: TinyNet).	

DEC 2020	Museum Painting Retrieval	arXiv / code
OCT 2020	Query by example CBIR system for finding paintings in a museum image collection using color, texture, text and feature descriptors in datasets with different perturbations in the images: noise, overlapping text boxes, color corruption and rotation.	
DEC 2020	Image Restoration and Segmentation with Optimization Techniques	slides / code
OCT 2020	Implement different optimization techniques to solve specific tasks: inpainting, Poisson editing, Chan-Vese segmentation and Markov Random Fields for image segmentation.	
JULY 2020	Pedestrian Detection in 3D Point Clouds using Deep Neural Networks	arXiv / slides
FEB 2020	Detect pedestrians in RGB images with <i>YOLOv3</i> , transfer 2D labels onto the point clouds using projection matrices and train <i>PointNet++</i> with the resulting 3D clusters.	
DEC 2019	Ultrasound-Machine Simulator for Medical purposes	
SEPT 2019	Project proposed by Fetal Medicine Barcelona : ultrasound-machine simulator for medical personnel training purposes using a smartphone to emulate the ultrasound probe and a computer for processing and visualization of DICOM images.	

SKILLS

Software: OPENCV, PYTORCH, PCL, DETECTRON2, ROS, KERAS
Technical: Python, C++, MATLAB, C, Java, SQL, MongoDB, L^AT_EX
Languages: Spanish, Catalan, English (C1 ADVANCED)