ÒSCAR LORENTE COROMINAS

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EDUCATION

Current – Oct 2020 | **Master's Degree, Computer Vision**
Universitat Autònoma de Barcelona (UAB) in collaboration with UPC, UPF, UOC

July 2020 – Sept 2016 | **Bachelor's Degree, Telecommunications Technologies and Services Engineering**
ETSETB - Universitat Politècnica de Catalunya (UPC), Barcelona
Majored in audiovisual systems

WORK EXPERIENCE

Current – Oct 2020 | **Research Intern** at Centre for Sensors, Instruments and Systems Development (CD6 - UPC), Terrassa, Barcelona
Researching deep learning techniques to improve 3D object detection using RGB and LIDAR fusion architectures

July 2020 – Feb 2020 | **Computer Vision Intern** at Beamagine s.l., Terrassa, Barcelona
Designing and implementing pedestrian detection architectures in 3D point clouds
Developed the ability to identify, formulate and solve engineering problems related to the computer vision field. Highly improved C++, Python, OpenCV and PCL skills.

Nov 2018 – July 2018 | **SQL Developer** at Accenture, Sant Cugat del Vallès, Barcelona
Succeed in developing and managing SQL databases of bank clients
Improved analysis and problem-solving skills, learned the importance of teamwork, organization and discipline, through the constant communication and feedback between project team members.

PROJECTS

July 2020 – Feb 2020 | **Pedestrian Detection in 3D Point Clouds using Deep Neural Networks**
State-of-the-art deep learning architecture based on **PointNet++** to detect pedestrians in 3D point clouds obtained from Beamagine L3CAM Lidar (registered with RGB video sequences). Workflow: apply YOLOv3 for pedestrian detection in the RGB video data, transfer annotations onto the point clouds generating a pedestrian labeled point cloud dataset, and train the designed DNN architecture using the labeled point clouds.

Dec 2019 – Sept 2019 | **Ultrasound-Machine Simulator for Medical purposes**
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 (Matlab) and visualization of dicom images.

May 2019 – Apr 2019 | **Speaker Recognition, Classification and Verification System**
Speaker recognition, classification and verification system (C++) based on the MFCC cepstral coefficients and the use of the Gaussian Mixture Models (GMM). A Deep Learning algorithm based on a multilayer perceptron for speaker classification was also implemented.

SKILLS

Software: OpenCV, PCL (Point Cloud Library), ROS (Robot Operating System)
Technical: C++, Python, Matlab, C, Java, SQL, MongoDB, LaTeX
Languages: Spanish, Catalan, English (C1 Advanced)