

# WAF2020

## 21<sup>st</sup> International Workshop of Physical Agents

### INVITED SPEAKER

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Antonio M. López is the principal investigator of the Autonomous Driving lab of the Computer Vision Center (CVC) at the Universitat Autònoma de Barcelona (UAB). He has also a tenure position as associated professor at the Computer Science department of the UAB. Antonio has a long trajectory carrying research at the intersection of computer vision, computer graphics, machine learning, driver assistance and autonomous driving. Antonio has been deeply involved in the creation of the SYNTHIA dataset and the CARLA open-source simulator, both for democratizing autonomous driving research. He is actively working hand-on-hand with industry partners to bring state-of-the-art techniques to the field of autonomous driving. Currently, Antonio is granted by the Catalan ICREA Academia program.

## The Deep Learning Era: Data is the Driver in Autonomous Driving

Collecting images and manually labeling them to develop vision models has been a major bottleneck since computer vision and machine learning walk together. This has been more evident since computer vision falls on the shoulders of data-hungry deep learning techniques. Therefore, any approach aiming at reducing such a time-consuming and costly work is of high interest for addressing computer vision applications such as autonomous driving. In this talk we review our recent work for minimizing human data labeling with the support of simulators and virtual environments, including the development of end-to-end driving models, co-training for object detection, and learning to classify unseen classes by leveraging synthetic samples.

### CONTACT

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