



## Gabriel Villalonga Pineda

### CONTACT

#### INFORMATION

Dos de Maig 318, 3º, 1º  
08025 Barcelona  
Catalonia, Spain

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<http://www.cvc.uab.es/people/gvillalonga/>  
(+34) 630510507

#### RESEARCH INTERESTS

Computer Vision, Pedestrian detection, Autonomous Driving, Scene Understanding, Localization, Deep Learning

### EDUCATION

#### Ph.D. Student

Universitat Autònoma de Barcelona & Computer Vision Center, Spain

Present

- Dissertation title: End-to-End Perception for Autonomous Driving

#### Master in Computer Vision

2015

Universitat Autònoma de Barcelona, Universitat Oberta de Catalunya, Universitat Politècnica de Catalunya & Universitat Pompeu Fabra, Spain

- Dissertation title: Online City Maps with Pedestrian Behaviours Statistics

#### Bachelor degree in Computer Science (Hons.)

2014

Universitat Autònoma de Barcelona, Spain

- Dissertation title: Road plane and Pedestrian Detection 3D

### GRANTS

#### Ph.D. grant: Personal Investigador en Formación (PIF)

2016-2018

Universitat Autònoma de Barcelona, Spain

#### VISITT grant for master students

2015

Computer Vision Center & ASCAMM technology centre, Spain

#### Mobility scholarship for students

2007

Ministerio de Educación, Spain

### PROFESSIONAL EXPERIENCE

#### Research Intern

2013-Present

Computer Vision Center, Spain

- IDIADA and Samsung projects

### PARTICIPATION IN RESEARCH PROJECTS

#### ACDC: Autonomous Cooperative Drivers in the City

2015-2018

Principal Investigators: Antonio M. López and David Vázquez

Spanish Project TRA2014-57088-C2-1-R

	MAPEA2: Movimiento Acostumbrado de los Peatones: Estudio para Atajar los Accidentes. <b>DGT</b> <b>Principal investigator:</b> A.M. López	<b>2015</b>
	<b>Autonomous vehicle development</b> <b>CVC-ADAS, UPC-IRI, UMH-UWICORE and APPLUS-IDIADA</b>	<b>2014-Present</b>
	<b>Vehicle automatization and localization</b> VISIT project by <b>CVC-ADAS</b> and <b>ASCAMM</b>	<b>2014-2015</b>
	<b>eCo-DRIVERS: Ecologic Cooperative Driver and Road Intelligent Visual Exploration for Route Safety</b> Spanish Project TRA2011-29454-C03-00-00	<b>2011-2015</b>
PARTICIPATION IN INDUSTRIAL PROJECTS	<b>APPLUS+ IDIADA(2)</b> <b>Principal investigators:</b> Antonio M. López and David Vázquez <b>Investigators:</b> Gabriel Villalonga	<b>2014-2015</b>
	<b>Samsung</b> <b>Principal investigators:</b> Antonio M. López and David Vázquez <b>Investigators:</b> Gabriel Villalonga	<b>2014</b>
	<b>APPLUS+ IDIADA(1)</b> <b>Principal investigators:</b> Antonio M. López and David Vázquez <b>Investigators:</b> Gabriel Villalonga	<b>2013-2014</b>
TECHNICAL SKILLS	<b>Programming:</b> C/C++, Java, Matlab <b>Libraries:</b> <i>Vision</i> (OpenCV), <i>Algebra</i> (Lapack, libMatrix), <i>Images</i> (libJPG, libPNG, libTif, zLib), <i>Machine Learning</i> (SVMLight, libSVM, libLinear), MatConvNet, QT, ROS <b>Others:</b> Windows, Linux, L <sup>A</sup> T <sub>E</sub> X	
LANGUAGES	<b>Spanish:</b> mother tongue <b>Catalan:</b> mother tongue	<b>English:</b> B2.1
PUBLICATIONS	<b>Conference Papers</b>  <b>Multiview Random Forest of Local Experts Combining RGB and LIDAR data for Pedestrian Detection</b> A. Gonzalez, G. Villalonga, J. Xu, D. Vázquez, J. Amores & A. López In <i>IEEE Intelligent Vehicles Symposium (IV)</i>	<b>2015</b>
	<b>3D-Guided Multiscale Sliding Window for Pedestrian Detection</b> A. Gonzalez, G. Villalonga, G. Ros, D. Vázquez & A. López In <i>Iberian Conference on Pattern Recognition and Image Analysis (IbPRIA)</i>	<b>2015</b>
DEMOS	<b>Autonomous Vehicle Simulator</b> G. Villalonga, A. Gonzalez, A. Shuvin, L. Sellart, D. Vázquez, G. Ros & A. M. López	<b>2015</b>

*CERCA 15*

**3D Pedestrian Detection via Random Forest** 2015  
G. Villalonga, A. Gonzalez, G. Ros, D. Vazquez & A. M. Lopez.  
*Demo at Iberian Pattern Recognition and Image Analysis (**IbPRIA**), Santiago de Compostela*

**Autonomous Vehicle Simulation** 2015  
G. Villalonga, A. Gonzalez, A. Shuvin, L. Sellart, G. Ros, D. Vazquez & A. M. Lopez.  
*MEMEnginy 15, feast of engineering school (**ETSE**), Barcelona*

**Autonomous Vehicle Simulator** 2015  
G. Villalonga, A. Gonzalez, A. Shuvin, L. Sellart, D. Vázquez, G. Ros & A. M. López  
*NOVUM 15, Science feast of Barcelona*

**3D Pedestrian Detection** 2015  
G. Villalonga, A. Gonzalez, G. Ros, D. Vazquez & A. M. Lopez.  
*Saló del Ensenyament, Barcelona*

**3D Pedestrian Detection via Random Forest** 2014  
G. Villalonga, S. Ramos, G. Ros, D. Vazquez & A. M. Lopez.  
*Demo at European Conference on Computer Vision (**ECCV**), Zurich*

**3D Pedestrian Detection** 2014  
G. Villalonga, S. Ramos, G. Ros, D. Vazquez & A. M. Lopez.  
*MEMEnginy 14, feast of engineering school (**ETSE**), Barcelona*

INVITED TALKS      **University of Alcalá, Learning to Drive in a Virtual World, Spain** Nov 2015

AWARDS      **Best Master Thesis on Intelligent Transportation Systems - Third Prize** by IEEE Spanish Chapter of Intelligenet Transportation Systems 2015

**Best Bachelor Dissertation Poster on Computer Science - First Prize** by Universitat Autònoma de Barcelona 2014