

EDGAR RIBA

Education	UNIVERSITAT AUTONOMA DE BARCELONA	Barcelona, Spain
	10/2015–now	
	Ph.D. in Computer Science Dissertation: <i>Computer Vision Techniques in Very High Resolution Remote Sensing</i> . Advisor: Daniel Ponsa. Research Topics: Structure from Motion, Multiview Geometry, Deep Learning, Drone Imagery, Remote Sensing, Multi/Hyper spectral imagery.	
	UNIVERSITAT POLITECNICA DE CATALUNYA	Barcelona, Spain
	07/2012–06/2015	
	M.S. in Automatic Control and Robotics. Dissertation: <i>Implementation of a 3D pose estimation algorithm</i> . Advisors: Adrian Penate and Francesc Moreno.	
	UNIVERSITAT POLITECNICA DE CATALUNYA	Barcelona, Spain
	07/2008–06/2012	
	B.S. in Geomatic and Surveying Engineering.	

Work Experience

COMPUTER VISION CENTER	Barcelona, Spain
10/2015–now	
PhD candidate, Advanced Driver Assistance Systems group	
<ul style="list-style-type: none">• working on algorithms for 3D reconstruction and deep learning for drone imagery.	
OPENCV	Barcelona, Spain
05/2015–08/2015	
Intern, Google Summer of Code	
<ul style="list-style-type: none">• developed the Structure From Motion module using a customized version of Libmv.• integrated and succeed with the pull request in the Github infrastructure.	
ALDEBARAN ROBOTICS	Paris, France
02/2015–06/2015	
Intern Software Engineer, Perception team	
<ul style="list-style-type: none">• designed and implemented an algorithm for people detection and tracking by sensor fusion using ROS, OpenCV and C++.	
OPENCV	Barcelona, Spain
05/2014–08/2014	
Intern, Google Summer of Code	
<ul style="list-style-type: none">• designed and implemented a real time pose estimation algorithm for textured objects.• implemented the PnP method: <i>A direct least-squares</i> (DLS) in the calib3d module.• contributed with a tutorial for the calib3d module.	
INSTITUT DE ROBOTICA I INFORMATICA INDUSTRIAL (CSIC-UPC)	Barcelona, Spain
05/2014–08/2014	
Research Assistant, Perception and Manipulation group	
<ul style="list-style-type: none">• worked on my masters thesis in geometric computer vision.	

Teaching Experience

UNIVERSITAT POLITÈCNICA DE CATALUNYA Barcelona, Spain
310209, *Electromagnetism and Optics*, Fall 2007: Teaching Assistant
310209, *Electromagnetism and Optics*, Spring 2007: Teaching Assistant

Professional Activities

Co-founder and member of the *La Konfraria de la Vila del Pinguí*. An Open Source community, organizing local events and workshops spreading the free software culture.

Google Summer of Code student for OpenCV from 2014 to 2015.

Constant developer in many Open Source projects such as OpenCV, ROS, Object Recognition Kitchen, OpenDroneMap and OpenSfM.

Participated in many robotics competitions such as the HUMABOT Robot Competition 2014 during the *IEEE-RAS International Conference on Humanoid Robots* (Madrid, Spain) and the RoCKIn Camp 2014 organized by La Sapienza University of Rome (Rome, Italy) within the company PAL Robotics.

Skills Competence: Vision (SfM, object recognition, people detection), Robotics, Programming.
Programming Languages: C++, Python.
Programming Libraries: OpenCV, ROS, Caffe, OpenSfM, CMVS/PMVS.
Extra Interests: CMake, Git, Android, Octave/Matlab, Java, Javascript, Boost.
Languages: Catalan (native), Spanish (native), English (professional)

Relevant Coursework

- *Object Detection* (Free online course, Universitat Autònoma de Barcelona. Fall 2015)
- *Machine Learning* (Free online course, Stanford. Fall 2014)
- *Introduction to Robot Operating System (ROS)* (Universitat Politècnica de Catalunya. Spring 2014)

References

Prof. Daniel Ponsa

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Dr. Vincent Rabaud

Google, Inc.
vincent.rabaud@gmail.com

Dr. Francesc Moreno-Noguer

Institut de Robotica i Informatica Industrial (CSIC-UPC)
fmoreno@iri.upc.edu

Dr. Adrian Penate-Sanchez

University College London
andarinneo@gmail.com

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