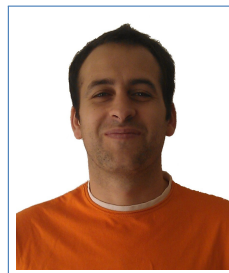# Edgar Riba Pi

Curriculum Vitae

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PERSONAL DETAILS

Date of Birth	23rd of April 1986
Place of Birth	Barcelona, Spain
LinkedIn	`https://www.linkedin.com/in/edgarriba`
GitHub	`https://github.com/edgarriba`

DESIRED EMPLOYMENT AND SKILLS

Software Engineering Intern, MS/PhD, Summer 2016

Some experience in 3D object tracking, people detection, range sensors, 3D computer vision, Structure From Motion and Robotics using OpenCV, ROS, C++ and Python. Currently working on aerial image processing such as UAVs using machine learning techniques and multi/hyperspectral images in order to solve remote sensing lacks.

EXPERIENCE

2015-Present **PhD candidate/research**, *Computer Vision Center*, Barcelona, Spain.
Pursuing a PhD in Computer Science using computer vision techniques applied to very high resolution remote sensing images with multi/hyperspectral data and machine learning in order to improve traditional aerial image processing.

2015 **Google Summer of Code 2015 student**, Google, OpenCV.
Integration of a robust Structure From Motion module in OpenCV using a customized version of Libmv (Library for Multiview Reconstruction) in order to allow developers to code apps for 3D reconstruction in C++ and Python.

2015 **Intern Software Engineer**, *Aldebaran Robotics - Sotfbank Group*, Paris, France.
Five months internship in the perception team working on a sensor fusion algorithm in order to solve people detection using OpenCV and ROS.

2014 **Google Summer of Code 2014 student**, Google, OpenCV.
Co-developed project in OpenCV implementing a real time pose estimation algorithm for textured objects. Additionally, I did a tutorial for PnP apps and finally the C++ implementation of the PnP method: A direct least-squares (DLS) in the calib3d OpenCV module.

2014 **Research Assistant**, *Institut de Robòtica i Informàtica Industrial*, Barcelona, Spain.
Master thesis student working on geometric computer vision. "Implementation of a 3D pose estimation algorithm".

Education

2012-2015   **MSc in Automatic Control and Robotics**, *Universitat Politècnica de Catalunya*, Barcelona, Spain.
2 year course in Automatic Control, Robotics and Computer Vision.

2008-2012   **BSc in Geomatics and Land Surveing**, *Universitat Politècnica de Catalunya*, Barcelona, Spain.
3 year course in Geomatics, Photogrammetry, Cartography, GIS and Civil Engineering.

2012-Present   **BSc in Informatics Engineering**, *Universitat Oberta de Catalunya*, Barcelona, Spain.
4 year course in Computer Engineering.

Independent Courses

2014   **"Introduction to Robot Operating System (ROS)"**, *Universitat Politècnica de Catalunya*, Barcelona, Spain.
20 hours course about design and program algorithms using ROS.

2014   **"Machine Learning"**, *Coursera*, Standford University, Online.
50 hours course about Machine Learning. Instructor: Andrew Ng.

Voluntary Activity

2010-Present   **Konfraria de la Vila del Pingüí**, *OpenSource Community*, La Palma de Cervelló, Spain.
Co-Founder organizing events and workshops in order to spread the open software culture.
http://www.konfraria.org/

November 2014   **HUMABOT Robot Competition 2014**, *IEEE-RAS International Conference on Humanoid Robots*, Madrid, Spain.
Member of the team NAO@UPC formed by the UPC university in order to program a NAO robot to participate in the Humabot competition held in Humanoids 2014.

January 2014   **RoCKIn Camp 2014**, *Sapienza University of Rome*, Rome, Italy.
Campus to prepare the RoCKIn@Home competition as a member of the team MAiRAp formed by the company PAL Robotics and the UPC university in order to program the robot REEM.

Computer Skills

Languages   C++, Python, Java, Octave/Matlab.
Libraries   OpenCV, ROS, Git, CMake, Boost, Ecto, OpenSfM, OpenDroneMaps Caffe.
Software   GNU/Linux, Octave/Matlab, Eclipse, Sublime.
Typesettings   LaTeX, LibreOffice.

Languages

Catalan   **Native**
Spanish   **Native**
English   **Full professional proficiency**