



# Roberto Valle Fernández

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🌐 bobetocalo • Date of birth: 06/09/1988

## Curriculum Vitae

### Education

#### Universidad Politécnica de Madrid

*PhD Programme in Artificial Intelligence*

Thesis: Facial visual attributes estimation.

Boadilla del Monte (Madrid), Spain

2015 - 2019

#### Universidad Rey Juan Carlos

*MSc in Computer Vision, 8.83/10*

Thesis: Text detection and recognition in the wild.

Móstoles (Madrid), Spain

2011 - 2013

#### Universidad Rey Juan Carlos

*BSc Computer Science Engineering, 7.91/10*

Thesis: Vehicles localization, license plate recognition and model identification.

Móstoles (Madrid), Spain

2009 - 2011

#### Universidad Rey Juan Carlos

*Technical Engineering in Computer Science, 7.19/10*

Thesis: Model vehicles identification.

Móstoles (Madrid), Spain

2006 - 2009

### Scientific Activity

#### Research HEIMDAL-UPM project (<http://www.geintra-uah.org/heimdall/>)

*Detecting semantic data using multiple sensors in-the-wild*

Spanish Ministry of Education and Competitiveness.

2017 - 2019

#### Research SPACES-UPM project (<http://www.geintra-uah.org/spaces/>)

*Human behaviour supervision using multiple sensors*

Spanish Ministry of Education and Competitiveness.

2014 - 2016

### Scientific Publications

#### A Deeply-initialized Coarse-to-fine Ensemble of Regression Trees for Face Alignment

Roberto Valle, José M. Buenaposada, Antonio Valdés, Luis Baumela

2018

European Conference on Computer Vision, ECCV 2018, Munich, Germany, September 8-14, 2018 ([https://github.com/bobetocalo/bobetocalo\\_eccv18](https://github.com/bobetocalo/bobetocalo_eccv18)).

#### Benchmarking Head Pose Estimation in-the-Wild

Elvira Amador, Roberto Valle, José M. Buenaposada, Luis Baumela

2017

Conference on Progress in Pattern Recognition, Image Analysis, Computer Vision and Applications, 22nd Iberoamerican Congress, CIARP 2017, pp. 45-52, Valparaíso, Chile, November 7-10, 2017, LNCS 10657, Springer-Verlag ([https://github.com/bobetocalo/bobetocalo\\_ciarp17](https://github.com/bobetocalo/bobetocalo_ciarp17)).

## Head-Pose Estimation In-the-Wild Using a Random Forest

Roberto Valle, José M. Buenaposada, Antonio Valdés, Luis Baumela

2016

Conference on Articulated Motion and Deformable Objects, 9th International Conference, AMDO 2016, pp. 24-33, Palma de Mallorca, Spain, July 13-15, 2016 ([https://github.com/bobetocalo/bobetocalo\\_amdo16](https://github.com/bobetocalo/bobetocalo_amdo16)).

## Languages

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### Spanish

Native proficiency

### English

First Certificate in English (FCE), Cambridge ESOL

## Scholarships Received

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### Universidad Internacional Menéndez Pelayo

Madrid, Spain

Intensive English language classes, Intermediate Level 2

2012 - 2014

Level B2 related to Common European Framework of Reference for learning languages.

### Spanish Ministry of Education studentship

Manchester, England

Language course abroad for a minimum period of 3 weeks

2011

## Computer Skills

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### Operating Systems

Linux, Mac OS X, Windows, iOS, Android

### Programming Languages

C/C++, Python, Octave/Matlab

### Computer Vision Libraries

OpenCV, Tensorflow, Keras, Caffe, Boost, Scikit Learn

## Research Areas

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### Universidad Politécnica de Madrid

Boadilla del Monte (Madrid), Spain

Perception for computers and robots group

2013 - 2019

Collaborator for the PCR group (<http://www.dia.fi.upm.es/~pcr>) interested in the following areas:

- Computer Vision
- Machine Learning
- Artificial Intelligence
- Deep Learning

## Work Experience

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### The Grafter (<http://www.thegrafter.com>)

Madrid, Spain

Facade building localisation for an augmented reality Android and iOS app

2013 - 2015

Research and develop on algorithms for localisation of buildings (with repetitive structures) on video streams. The application renders the live camera preview frame on the display to represent a superimposed image over the building.

Demo: <https://www.youtube.com/watch?v=94d-iGe4ShE>.

### CAB Magazine Online S.L

Madrid, Spain

OCR for Spanish ID documents on video

2012

The goal of the project was to read, in short video streams, the three OCR lines of the Spanish ID documents. OCR lines appears also on other countries passports (our software is valid for this other documents also with minimal customization). In this project we developed a full prototype using C++ and OpenCV on GNU/Linux. Unfortunately the company gave up on the project before the full validation of the prototype so we have the software and the project available to any interested company. Demo: <https://www.youtube.com/watch?v=3CaBmIKT06Y>.