

# Roberto Valle Fernández

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in bobetocalo • ⑤ bobetocalo • Date of birth: 06/09/1988

### Curriculum Vitae

# **Education**

Lucation	
EIT Digital Doctoral School	Europe
Selected in 2015 to enter the Doctoral School of the EIT Digital https://doctoralschool.eitdigital.eu/	2015 - 2019
Technical University of Madrid	Madrid, Spain
PhD Programme in Artificial Intelligence Thesis: Facial landmarks localization.	2015 - 2019
Rey Juan Carlos University	Madrid, Spain
MSc in Computer Vision, 8.83/10 Thesis: Text detection and recognition in the wild.	2011 - 2013
Rey Juan Carlos University	Madrid, Spain
MSc in Computer Science and Engineering, $7.91/10$ Thesis: Vehicles localization, license plate recognition and model identification.	2009 - 2011
Rey Juan Carlos University	Madrid, Spain
BSc in Computer Science, 7.19/10 Thesis: Vehicle model recognition.	2006 - 2009
Scientific Publications	
Face Alignment using a 3D Deeply-initialized Ensemble of Regression Trees	
Roberto Valle, José M. Buenaposada, Antonio Valdés, Luis Baumela	2019

CoRR abs/1902.01831, 2019 (https://github.com/bobetocalo/bobetocalo_eccv18).	
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, pp. 609-624, Munich, Germany, September 8-14, (https://github.com/bobetocalo/bobetocalo_eccv18).	2018
Facial Landmarks Detection Using a Cascade of Recombinator Networks	
Pedro D. López, Roberto Valle, Luis Baumela	2018

Iberoamerican Congress on Pattern Recognition, CIARP 2018, pp. 575-583, Madrid, Spain, November 19-22, 2018.

IAPR Best Student Paper Award (https://github.com/bobetocalo/bobetocalo\_ciarp18)

### 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).

### 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).

# **Teaching Assistant**

#### Reconocimiento de Formas

Prof. Luis Baumela 2017 - 2019

Spanish (https://bobetocalo.github.io/pdf/rec\_formas.pdf).

**Deep Learning** 

Prof. Luis Baumela 2017 - 2019

English (https://bobetocalo.github.io/pdf/deep\_learning.pdf).

# Languages

### Spanish

Native proficiency

### **English**

First Certificate in English (FCE), Cambridge ESOL

# **Scholarships Received**

## Menéndez Pelayo International University

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 Scholarship

Manchester, England

Language course abroad for a minimum period of 3 weeks

2011

# **Computer Skills**

### **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

### **Technical University of Madrid**

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

# **Research Projects**

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

 $Detecting\ semantic\ data\ using\ multiple\ sensors\ in\mbox{-}the\mbox{-}wild$ 

2017 - 2019

Spanish Ministry of Education and Competitiveness.

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

Human behaviour supervision using multiple sensors Spanish Ministry of Education and Competitiveness. 2014 - 2016

# **Work Experience**

### The Graffter (http://www.thegraffter.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.