

Clara Fernández Labrador

`cfernandezlab.github.io`

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PhD Student in Computer Vision

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Interests and Objectives

My main area of interest lies on 3D Computer Vision and Deep Learning. I am particularly excited about 3D scene understanding, beyond the traditional sensors, and about unsupervised learning.

Work/Research Experience

2020 (3 months)	Disney Research Studios Research Intern Supervised by Hayko Riemenschneider. (Starting 1st July) Zürich, Switzerland
2019–2020 (7 months)	Computer Vision Laboratory (CVL), ETH Visiting Researcher Automatic discovery of category-specific keypoints on collection of 3D objects, advised by Ajad Chhatkuli and Danda Pani Paudel, managed by Professor Luc Van Gool. Zürich, Switzerland
2017 (7 months)	Robotics, Perception & Real Time Group, University of Zaragoza Research Engineer 3D room layout reconstruction using single panoramic images, advised by Alejandro Perez and Professor Josechu Guerrero. Zaragoza, Spain
2015 (5 months)	Colombin & Figlio Spa Undergraduate Intern Security management planning. Trieste, Italy
2014 (3 months)	Tecnopackaging Undergraduate Intern 3D CAD design and injection simulations for human prosthetics with biocompatible plastic materials. Zaragoza, Spain

Educational Background

2017–2020	Doctor of Philosophy in Computer Vision University of Zaragoza, Spain & University of Burgundy, France PhD Thesis: <i>Indoor Scene Understanding using Non-Conventional Cameras</i> . Advisors: Josechu Guerrero and Cédric Demonceaux
2016–2017	Erasmus Programme Politecnico di Torino, Italy
2015–2017	Master’s Degree in Industrial Engineering University of Zaragoza Master’s Thesis: <i>3D Room Layout Estimation from a Single 360 Panorama</i> . (9.7/10) Advisors: Alejandro Perez and Josechu Guerrero
2014–2015	Erasmus Programme Università degli studi di Trieste, Italy
2011–2015	Bachelor’s Degree in Industrial Engineering University of Zaragoza Bachelor’s Thesis: <i>Security Management Planning</i> . (10/10) Advisors: Ángel Fernández and Nicolich Marino

Publications

Journals, Conferences and Workshops

- **[c4] Unsupervised Learning of Category-Specific Symmetric 3D Keypoints from Point Sets.** Clara Fernández Labrador, Ajad Chhatkuli, Danda Pani Paudel, José J. Guerrero, Cédric Demonceaux, Luc Van Gool. Under review (ECCV 2020).
- **[c3] What’s in my Room? Object Recognition on Indoor Panoramic Images.** Julia Guerrero-Viu*, Clara Fernández Labrador*, Cédric Demonceaux, José J. Guerrero. International Conference on Robotics and Automation (ICRA 2020).
- **[j2–c2–w3] Corners for Layout: End-to-End Layout Recovery from 360 Images.** Clara Fernández Labrador*, J. María Fácil*, Alejandro Pérez Yus, Cédric Demonceaux, Javier Civera, José J. Guerrero. Women in Computer Vision Workshop & Robotics and Automation Letters & International Conference on Robotics and Automation (CVPR 2019, RA-L & ICRA 2020).
- **[w2] PanoRoom: From the Sphere to the 3D Layout.** Clara Fernández Labrador, J. María Fácil, Alejandro Pérez Yus, Cédric Demonceaux, José J. Guerrero. 3D Reconstruction Meets Semantics Workshop (ECCV 2018).
- **[j1–c1] Layouts from Panoramic Images with Geometry and Deep Learning.** Clara Fernández Labrador, Alejandro Pérez Yus, Gonzalo López Nicolás, José J. Guerrero. Robotics and Automation Letters & International Conference on Intelligent Robots (RA-L & IROS 2018).
- **[w1] Full 3D Layout Reconstruction from One Single 360° Image.** Clara Fernández Labrador, Alejandro Pérez Yus, Gonzalo López Nicolás, José J. Guerrero. Women in Computer Vision Workshop (ECCV 2018).

Supervised Bachelor/Master Thesis

2019	<i>Object Recognition in 360 Images. (10/10).</i> Julia Guerrero Campo. Bachelor's Degree in Computer Science, University of Zaragoza
2018	<i>Single View Layout Reconstruction. (9.7/10).</i> Juan Carlos Medina. Bachelor's Degree in Industrial Engineering, University of Zaragoza

Languages

English	Fluent (C1+)
Italian	Fluent (C1+)
French	Intermediate
Spanish	Native