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Clara Fernández-Labrador

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Education

Universidad de Zaragoza, Spain / Université de Bourgogne Franche-Comté, France Oct 2017 - Now

Ph.D. in Computer Vision

Advised by Dr. José J. Guerrero Campo and Dr. Cédric Demonceaux

Summer School on Computer Vision - ICVSS 2018 (34%)

Politecnico di Torino, Italy Sep 2016 - Mar 2017

Visit during Bachelor of Industrial Engineering

Funded by EU Erasmus Program

Università degli studi di Trieste, Italy Sep 2014 - Jun 2015

Visit during Master of Industrial Engineering

Funded by EU Erasmus Program

Universidad de Zaragoza, Spain Sep 2015 - Oct 2017

Master of Industrial Engineering

Thesis title: "3D Room Layout Estimation from a Single 360° Panorama"

Advised by Dr. José J. Guerrero Campo and Dr. Alejandro Pérez Yus

Bachelor of Industrial Engineering Sep 2011 - Sep 2015

Thesis title: "Design and Organization for the Machines Control in a Company"

Advised by Dr. Ángel Fernández Cuello and Dr. Nicolich Marino

Work Experience

Universidad de Zaragoza, Spain Oct 2017 - Now

Research Assistant - Ms. Candidate – PhD Candidate

Robotics, Perception & Real Time Group.

Research Project: "DPI2015-65962-R: Egocentric Computer Vision for Environment Interaction of Visually Impaired People, EVEIVI"

Research in Computer Vision and Robotics: Complex scene analysis with non-conventional cameras for robotics and people assistance. Geometry and deep learning combination.

Research Assistant - Ms. Candidate Mar 2017 - Oct 2017

Robotics, Perception & Real Time Group.

Research Initiation Scholarship

Research Project: "DPI2014-61792-EXP: Sistemas de visión no convencionales para percepción en prótesis de visión simulada"

Research in Computer Vision and Robotics: 3D layout recovery of indoor scenes from single 360 degrees panoramas. Geometry and deep learning combination.

Colombin GM & Figlio Spa, Trieste, Italy Mar 2015 - Jul 2015

Undergraduate Intern - Bs. Candidate

Project management. Bottlenecks and personal protective equipment (PPE) managing.

Languages

English - First Certificate (B2). Currently preparing Cambridge Advanced (C1)

Italian - CILS Livello TRE (C1)

French - Lower Intermediate

Spanish - Mother tongue

Publications

JOURNALS

- [1] “Layouts from Panoramic Images with Geometry and Deep Learning”
Clara Fernández Labrador, Alejandro Pérez Yus, Gonzalo López Nicolás, José J. Guerrero
IEEE Robotics and Automation Letters, 2018
With IROS 2018 Presentation

INTERNATIONAL CONFERENCES AND WORKSHOPS

- [1] “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. *Under Review, 2019.*
- [2] “PanoRoom: From the Sphere to the 3D Layout”
Clara Fernández Labrador, J. María Fácil, Alejandro Pérez Yus, Cédric Demonceaux, José J. Guerrero
3DRMS with ECCV 2018. Munich, Germany.
- [3] “Full 3D Layout Reconstruction from One Single 360° Image”
Clara Fernández Labrador, Alejandro Pérez Yus, Gonzalo López Nicolás, José J. Guerrero
WiCV with ECCV 2018. Munich, Germany.
ICVSS 2018. Sicily Italy.

JORNADAS DE INVESTIGACIÓN

- [1] “Reconstrucción 3D completa de habitaciones a partir de imágenes panorámicas”
Clara Fernández Labrador, Alejandro Pérez Yus, Gonzalo López Nicolás, José J. Guerrero
VII Jornada de Jóvenes Investigadores del Instituto de Investigación en Ingeniería de Aragón (I3A) 2018.
Zaragoza, Spain.

Supervised Bachelor/Master thesis projects

- “Layout reconstruction with single view”
Juan Carlos Medina. Co-supervised with Dr. José J. Guerrero Campo.
Bs. Industrial Eng., University of Zaragoza. 2018
- “Object recognition in 360 images”
Julia Guerrero Campo. Co-supervised with Dr. José J. Guerrero Campo.
Bs. Computer Science, University of Zaragoza. 2019

Research Projects

- Egocentric Computer Vision for Environment Interaction of Visually Impaired People (EVEIVI), DPI2015-65962-R. Financed by MINECO and UE/FEDER. P.I.(principal investigator): José J. Guerrero
- Sistemas de visión no convencionales para percepción en prótesis de visión simulada, DPI2014-61792-EXP. Financed by MINECO and UE/FEDER. P.I.(principal investigator): Gonzalo López Nicolás