Julia Guerrero Viu

PhD Student - Graphics and Imaging Lab, I3A, Universidad de Zaragoza (Spain)

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Education

PhD in Computer Graphics
Zaragoza, Spain

Universidad de Zaragoza
2021 - Today

- Material appearance and visual perception with deep learning
- Supervised by Prof. Belen Masia and Prof. Diego Gutierrez - Graphics and Imaging Lab

MSc in Computer Science
Freiburg im Breisgau, Germany

University of Freiburg, Albert-Ludwigs-Universität
2019 - 2021

- Specialization in Artificial Intelligence
- GPA: 1.0 out of 1.0 - Graduated with Honors
- Master Thesis: Improving Deep Feature Representations for Self-Supervised Training of Disparity Estimation

BSc in Computer Engineering
Zaragoza, Spain

Universidad de Zaragoza
2015 - 2019

- Specialization in Computer Science
- GPA: 9.78 out of 10.0 - Honorable Mention achieved in 30 out of 39 courses
- Ranked #1 - Extraordinary Degree Award
- Bachelor Thesis: Object Recognition on Panoramic Images

ERASMUS+ Exchange Semester
Stockholm, Sweden

KTH Royal Institute of Technology, Stockholm
2017 - 2018

- Maximum grade (A) in all courses

Research Experience

Adobe Research
San José, CA

Research Intern
June 2023 - Sept 2023

- Diffusion-based textures editing (3 months - full time)
- Supervised by Dr. Valentin Deschaintre

Graphics and Imaging Lab - I3A, Universidad de Zaragoza
Zaragoza, Spain

Junior Research Intern
Sept 2019 - Oct 2019

- Denoising of physically based renders in challenging scenarios using Deep Neural Networks (210 h.)

Robotics, Perception and Real Time Group - I3A, Universidad de Zaragoza
Zaragoza, Spain

Collaboration Research Scholarship
Oct 2018 - June 2019

- Use of indoor 3D layouts for object recognition on omnidirectional images (8 months - 15h./week)
- Funded by Spanish Ministry of Education (Competitive Scholarship)

Publications

The Visual Language of Fabrics
V. Deschaintre*, J. Guerrero-Viu*, D. Gutierrez, T. Boubekeur, B. Masia
ACM Transactions on Graphics (Proceedings of SIGGRAPH 2023), 2023

Towards latent representations of gloss in complex stimuli using unsupervised learning
J. Guerrero-Viu, A. Serrano, B. Masia, D. Gutierrez
Journal of Vision - Abstract Issue (Vision Sciences Society Meeting), 2023

Bag of Baselines for Multi-objective Joint Neural Architecture Search and Hyperparameter Optimization
S. Izquierdo, J. Guerrero-Viu, S. Hauns, G. Miotto, S. Schrodi, A. Biedenkapp, T. Elsken, D. Deng, M. Lindauer, F. Hutter
Automated Machine Learning Workshop. International Conference on Machine Learning (ICML), 2021

Semi-Supervised Disparity Estimation with Deep Feature Reconstruction
J. Guerrero-Viu*, S. Izquierdo*, P. Schroeppel, T. Brox
WiCV Workshop. IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2021

What's in my Room? Object Recognition on Indoor Panoramic Images
J. Guerrero-Viu*, C. Fernandez-Labrador*, C. Demonceaux, J. J. Guerrero
IEEE International Conference on Robotics and Automation (ICRA), 2020

Patents

BOSCH - Automated Machine Learning algorithm 'EMOASH' *Germany*
Patent Reference: DE 102021109756.8 - Date: 19.04.2021 *2021*

Awards and Scholarships

Rising Stars - ACM WiGRAPH *Los Angeles, USA*
International recognition for up-and-coming researchers in computer graphics. In 2023, seven PhD *2023 - 2024*
students were selected for a two-year program of mentorship and workshops in ACM SIGGRAPH

FPU National Fellowship *Spain*
Competitive national fellowship to pursue a PhD funded by the Spanish Ministry of Universities *2021 - 2025*
- Ranked #1 in Spain for the area of Computer Science

WONNOW Award - Microsoft & CaixaBank *Spain*
National award for the female student in STEM with the best degrees *2021*
- My profile was included in the "Científicas e innovadoras" online platform, a repository of Spanish female scientists considered influential to inspire young people

Postgraduate Fellowship - La Caixa Foundation *Spain*
Competitive national fellowship to pursue postgraduate studies abroad in Europe *2019 - 2021*

Google EMEA Women Techmakers Scholarship *Europe, Middle East and Africa*
International award that recognizes twenty female Computer Science students across Europe, Middle *2019*
East and Africa for their academic excellence, leadership and social impact

Extraordinary Degree Award *Zaragoza, Spain*
Ranked #1 from the Bachelor in Computer Engineering promotion *2019*

Best University Student in Education and Values *Zaragoza, Spain*
Award that recognizes the best students from University of Zaragoza for their academic and professional *2019*
achievements, social commitment and international impact

Mobility City Scholarship *Zaragoza, Spain*
Grant for Bachelor Thesis related to the development of self-driving cars, funded by Cátedra Mobility City *2019*
and University of Zaragoza

Hash Code Online Qualification Round *Virtual*
International team coding competition organized by Google *2019 - 2022*
- Top 10 Spain (2019)
- Top 1 Zaragoza (2019, 2021, 2022)

Excellence Scholarship *Zaragoza, Spain*
Best entrance record in the faculty of Engineering at University of Zaragoza and excellent records *2015 - 2019*
maintained for the whole Bachelor degree

Teaching and Supervision

Programming Fundamentals *Universidad de Zaragoza, Spain*
Bachelor in Industrial Technologies Engineering (120h.) *2022 - 2024*

Learning interpretable representations of material appearance *Universidad de Zaragoza, Spain*
Santiago Jiménez Navarro - MSc in Robotics, Graphics and Computer Vision *2023 - 2024*
- Internship - 225 hours & MSc Thesis

Prediction of perceived glossiness with supervised learning   *Universidad de Zaragoza, Spain*

Fernando Gómez Osta - BSc in Computer Engineering   *2022*

- Internship - 188 hours

Detection and segmentation of objects on panoramic images   *Universidad de Zaragoza, Spain*

Alejandro de Nova Guerrero - MSc in Industrial Engineering   *2021*

- MSc Thesis

Dissemination

Una ingeniera en cada cole   *Aragon, Spain*

Dissemination initiative in regional primary schools (children aged 6-12) about engineering and science without gender stereotypes. Organized by AMIT-Aragon   *2016 - 2023*

- I have been organizing the talks and actively participating in them for eight years

Girls' Day - Engineering and Architecture Week   *Zaragoza, Spain*

Dissemination initiative at Universidad de Zaragoza. High school students come to the labs to learn about science and research   *2017 - 2023*

11F - International Day of Women and Girls in Science   *Spain*

Dissemination initiative in high schools (teenagers aged 12-18) to celebrate the International Day of Women and Girls in Science   *2022 - 2023*

European Researchers' Night   *Zaragoza, Spain*

Dissemination activity for children and families where we show our areas of research to the attendees   *2022*

ADA Program   *Spain*

Dissemination initiative in primary schools (children aged 6-12) about women in science, funded by Women's Institute and Spanish Ministry of Equity   *2021*

Technovation Girls   *Virtual*

International competition for teams of girls aged 10-18, in which they had to learn programming and create a mobile app to solve a problem in their community   *2021*

- I mentored two teams of girls (ages 10-11 and 17-18) during four months
- Junior team was Aragon regional winner and both teams were international semi-finalists

Seminar Gender & Technology   *Freiburg im Breisgau, Germany*

Interdisciplinary seminar (120 h.) at University of Freiburg about gender and all areas of technology (software design, robotics, media, ethical AI)   *2020*

- Volunteer participant during five months
- Speaker. Name of the talk: 'AI Fairness 360 Open Source Toolkit'

Women Techmakers Zaragoza   *Zaragoza, Spain*

Local tech conference to raise visibility to regional women in technology, partially funded by Google   *2019*

- Speaker. Name of the talk: 'Ingredients to become a Woman Tech'
- Volunteer at the organization of the event

Invited talk at ETFA Forum   *Zaragoza, Spain*

International conference on Emerging Technologies and Factory Automation 2019 (ETFA). Invited talk at the young professionals and students forum   *2019*

- Speaker. Name of the talk: 'How to become a Google Woman Tech'

Mentor for incoming students   *Zaragoza, Spain*

Mentoring program for first year Bachelor students in Computer Engineering at University of Zaragoza   *2018 - 2019*

DevFest Zaragoza   *Zaragoza, Spain*

Local tech conference for the general public, partially funded by Google   *2018*

- Co-organizer of the event and in-charge of the workshops for children

Media

Interviews in different national and regional media

- RTVE - National TV, Program: 'Aquí hay trabajo: 11F' (02/2022)
- El Periódico de Aragón - Regional Newspaper (01/2022)
- Eldiario.es - National Newspaper (01/2022)
- Aragón Radio, OndaCero Zaragoza - Regional Radio, Program: 'Despierta Aragón' (01/2022)
- RNE - National Radio, Program: 'Tolerancia Cero' (02/2021)
- Aragón Radio - Regional Radio, Program: 'Escúchate' (05/2020, 06/2021)
- Aragón Televisión - Regional TV, Program: 'La primera mujer: mujeres científicas' (07/2020)
- Heraldo de Aragón - Regional Newspaper (06/2019, 11/2020)

Languages

Spanish Native

English Full Professional Proficiency - C1 (Cambridge CAE)

French Intermediate Proficiency - B2 (DELF)

German Intermediate Proficiency

Other Interests

Theater Amateur actress at Teatro de la Estación - Zaragoza, Spain (2016 - Today)

Free Time Monitor Volunteer free time activities monitor and coordinator for children and young teenagers (aged 7-17). Hiking and adventure activities at the Pyrenees, Spain (2015 - 2019)

Music - Piano Piano studies at Escuela Municipal de Música y Danza - Zaragoza, Spain (2005 - 2015)