

# Imanol G. Estepa

PhD Student at University of Barcelona

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[in](#) [Imanol G. Estepa](#)

[🌐](#) [Personal webpage](#)

[🔍](#) [Google Scholar](#)

## EDUCATION

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2023 – Present

### PhD in Computer Vision

Universitat de Barcelona

- Focused on Self-supervised Representation Learning and Image Generation, under the mentorship of **Prof. Petia Radeva**, a **top 2% AI researcher** globally, and **Dr. Bhalaji Nagarajan**.
- Recipient of the **prestigious FPU Fellowship** funded by the Spanish Ministry of Universities, given to most promising students across the country. 8th candidate in the country.

2021 – 2023

### Master's Degree in Artificial Intelligence

Universitat Politècnica de Catalunya

- **Average grade:** 9.37/10
- Master's thesis "*Analysis and improvement proposal on self-supervised deep learning*" graded 10/10 with honors (mention given in exceptional cases). The manuscript is publicly available.
- Scores in courses relevant to my research: 9.9/10 in Computer Vision, 10/10 with honors in Unsupervised Learning.

2017 – 2021

### Bachelor's Degree in Computer Science

University of Deusto

- **Average grade:** 8.54/10
- Bachelor's thesis "*Deep learning application in industry and mobility*" [Industry linked thesis] led to 3 different patents.
- Student representative for all bachelor years.

## PUBLICATIONS

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2026 **Estepa, I.G.**, Rodríguez-de-Vera, J.M., Nagarajan, B., & Radeva, P. "Learning from Semantic Dictionaries: Discriminative Codebook Contrastive Learning for Unified Visual Representation and Generation", in the *CVPR Main Conference, 2026*. [Poster]

A. Carneiro G., **Estepa, I.G.**, Thierry J. A., Cunha A., J. Sousa J., Nagarajan B., Radeva P. "Frequency-Aware Reconstruction for Fine-grained Grapevine Representation Learning", in the *CVPR Workshops, 2026*. [Poster]

**Estepa, I.G.\***, Rodríguez-de-Vera, J.M.\*, Sarasúa, I., Nagarajan, B., & Radeva, P. "Conjuring Positive Pairs for Efficient Unification of Representation Learning and Image Synthesis", in the *WACV Main Conference [First Round], 2026*. [Poster]

2025 Rodríguez-de-Vera, J.M., **Estepa, I.G.**, Nagarajan, B., & Radeva, P. "CLIP-DoRA: Weight-Decomposed Low-Rank Adaptation for Efficient Vision-Language Models", in the *IJCNN Workshops, 2025*. [Poster]

2024 Rodríguez-de-Vera, J.M.\*, **Estepa, I.G.\***, Sarasúa, I., Nagarajan, B., & Radeva, P. "Precision at Scale: Domain-Specific Datasets On-Demand", *arXiv preprint arXiv:2407.03463, 2024*. Accepted on **Pattern Recognition (IF: 7.6)**.

Rodríguez-de-Vera, J.M., **Estepa, I.G.**, Bolaños, M., I., Nagarajan, B., & Radeva, P. "LOFI: LOnG-tailed FIne-Grained Network for Food Recognition", in the *CVPR Workshops, 2024*. [Oral and Poster]

2023 **Estepa, I.G.**, Sarasúa, I., Nagarajan, B., & Radeva, P. "All4One: Symbiotic Neighbour Contrastive Learning via Self-Attention and Redundancy Reduction", in the *ICCV Main Conference, 2023*. [Poster]

**Estepa, I.G.**, Rodríguez-de-Vera, J.M., Nagarajan, B., & Radeva, P. "Good Fences Make Good Neighbours", in the *ICCV Workshops, 2023*. [Poster]

Rodríguez-de-Vera, J.M., Villacorta, P., **Estepa, I.G.**, Bolaños, M., Sarasúa, I., Nagarajan, B., & Radeva, P. "Dining on Details: LLM-Guided Expert Networks for Fine-Grained Food Recognition", in the *ACMMM Workshops, 2023*. [Oral and Poster]

## OUTREACH AND SERVICE

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June 2026

### CVPR Workshop Challenge - Dishcovery Mission II - Denver, USA

**Organizer.** Decisionmaking, design and implementation of the evaluation task [↗](#) and generation of the training and test datasets [↗](#). 25 teams and 1500+ submissions during the lapse of the contest.

June 2025

### CVPR Workshop Challenge - Dishcovery: VLM MetaFood Challenge - Nashville, USA

**Organizer.** Decisionmaking, design and implementation of the evaluation task [↗](#) and generation of the training and test datasets [↗](#). 220+ submissions and 800+ downloads of the training dataset during the lapse of the contest.

January&July  
2025

### Seasonal International School: Demystifying Artificial Intelligence - Barcelona, Spain

**Organizer and Lecturer.** Developed and conducted a comprehensive lecture on GenAI ("*Generative AI: The Quest to Imitate the "Reality"*") and hands-on lab session for international engineering students at the Bachelor's, Master's, and PhD levels from partner institutions abroad.

2023 - Present

### Speaker at Regional Conferences and Symposiums - Barcelona, Spain

**Lecturer.** Regular speaker in regional AI and Computer Vision symposiums (2022–present), contributing presentations and posters on ongoing research.

2024 - Present

### IL3 Public Lectures - Barcelona, Spain

**Lecturer.** Developed and conducted a comprehensive Spanish lecture novel Generative AI techniques and their impact in our daily life.

## AWARDS & DISTINCTIONS

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2025

Award

### Best RES Scientific Paper Award to Precision-at-Scale

Competitive award given at the best paper across spanish HPC network.

2023-Present

Fellowship

### FPU Fellowship for PhD Studies, by the Spanish Ministry of Universities

Selected as the **8th best candidate** of the country for the FPU fellowship granted by the Spanish Ministry of Education and Science. This prestigious fellowship recognizes outstanding doctoral research potential and supports researchers pursuing their PhD studies in Spain. The fellowship includes a monthly stipend, funding for research stays, and a tuition waiver.

2023

Fellowship

### European Project fellow

Competitive fellowship awarded for European Project participation under the supervision of Petia Radeva.

## WORK EXPERIENCE

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March 2022 –

March 2025

### Deep Learning Researcher and Research Intern

AIBA research group, Dept of Mathematics and Computer Science, Universitat de Barcelona, Spain

- Part European and Regional projects: Measurer and Nuclis Deepsense.
- Produced several scientific publications.
- Consistently worked under the supervision of Dr. Petia Ivanova Radeva.

October 2019 –

May 2021

### Student Researcher

DeustoTech Technology Center [↗](#), Basque Country, Spain

- Development of a Deep learning model to convey efficient predictive maintenance of industry blast furnaces. Patent registered.
- Implementation of an industrial dashboard to control a completely automatized production plant. Patent registered.
- Development of a complete AI suite for Taxi reservation prediction and demand management (Oporto, Portugal). Patent registered.

## SKILLS

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**Languages** Spanish: native speaker.  
Basque: native speaker, CEFR level C1/HABE - Advanced (Certificate issued by Helduen Alfabetatze eta Berreuskalduntzerako Erakundea).  
English: CEFR level C1 - Advanced (Certificate issued by Cambridge Assessment English).

**Soft Skills** Public Speaking • Verbal Communication • Clarity of Thought • Adaptability • Collaboration