# MARIA PILLIGUA (AI STUDENT AND AI RESEARCHER)

Phone: (+34) 656328976 Mariaepc31@gmail.com

Barcelona, Spain <u>https://mpilligua.github.io</u>

2021 - 2025

**4th-year Bachelor's student in Artificial Intelligence at UAB,** ranked in the top 5% of my class with a GPA of 9.32/10. At 22 years old, I have over two years of research experience in AI with publications in top conferences like ECCV, specializing in Computer Vision. I am highly motivated and eager to collaborate on impactful projects.

# EDUCATION

**BS** Bachelor's Degree in Artificial Intelligence, Autonomous University of Barcelona (UAB) GPA 9.32 / 10

# HONORS, AWARDS AND INTERNSHIPS

Throughout my academic and research career, I have been fortunate to receive several distinctions, scholarships, and opportunities that recognize my commitment to excellence and research potential.

#### Honors

2021 – Present (Nov 2024)

• **Top 5% in 15 subjects** Received honors in 15 courses, including advanced topics such as Deep Learning and Natural Language Processing.

### Awards

- ECCV Diversity, Equity and Inclusion (DEI) Scholarship Sept 2024 Selected as one of 29 recipients from 524 applicants worldwide for exceptional research contributions and commitment to diversity in AI.
- Best Presentation Award CVC Scholarship Program July 2024 Awarded for delivering the top presentation among all interns at the Computer Vision Center.

| ٠ | 'Elena Maseras' Research Scholarship | Sept 2024 – March 2024 |
|---|--------------------------------------|------------------------|
| ٠ | 'Rosa Sensat' Research Scholarship   | April 2024 – July 2024 |
| ٠ | Research Scholarship                 | March 2023 – June 2023 |

All 3 research scholarship were awarded by CVC due to academic excellence, they provided hands-on experience in cutting-edge research. The first scholarship (March 2023 – June 2023) designed for master's students, which I received as a  $2^{nd}$  year undergraduate.

• World Robot Olympiad 4 Years National Champion 2016-2019

Led the team that secured Spain's national championship title for four consecutive years, competing at the international level. This experience sparked a competitive drive and showcased my early interest in technological innovation and robotics.

#### **RESEARCH EXPERIENCE**

With a strong foundation in Artificial Intelligence and Computer Vision, I have gained hands-on experience in innovative research projects over the past 2 years at the Computer Vision Center (CVC) in Barcelona. My work spans various cutting-edge topics, with contributions to high-impact conferences like ECCV or CVPR.

**Student Researcher**, Computer Vision Center, Barcelona, Spain *Advisor: Javier Vazquez-Corral* 

### • Video Decomposition

Developed a meta-learning strategy for video decomposition using hypernetworks, enabling faster convergence and improved training efficiency for video editing workflows. *Accepted to CVPR 2025* 

### • Document Understanding

Contributed to the design of a dual-layer document restoration framework for separating text and graphical elements, enhancing domain adaptability in document image restoration. *Presented at a workshop at ECCV 2024 and ICDAR 2024* 

# • Low Light Enhancement

Developed a novel model and created a dataset for enhancing low-light images, improving current state-of-the-art approaches.

A web page explaining each project in detail can be seen in my personal web page

| LANGUAGES |
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**English**: C1 IELTS level (Grade: 7.5) **Spanish and Catalan**: Native Language

# **COMPUTER SKILLS**

**Programming**: Python, C++ **Libraries**: PyTorch, TensorFlow, Scikitlearn, OpenCV, Pandas, Matplotlib. **Other tools**: SLURM, Git, LaTeX.

#### **References**

Dr. Javier Vazquez-Corral Jvazquez@cvc.uab.cat Autonomous University of Barcelona <u>https://jvazquezcorral.github.io</u> Spain Prof. Michael S. Brown <u>Mbrown@yotku.ca</u> York University – Toronto <u>http://www.cse.yorku.ca/~mbrown/</u> Canada

June 2024 – Nov 2024

Jan 2023 - Present

Feb 2024 – June 2024

Jan 2023 – Jan 2024