

Pasquale De Marinis, Ph.D.

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SUMMARY

Ph.D. in Computer Science and Mathematics (*Doctor Europaeus* label), research contractor at the CILAB laboratory, Department of Computer Science, University of Bari Aldo Moro. Research at the intersection of computer vision, few-shot learning and edge AI, with a focus on AI for sustainability through drone imagery.

RESEARCH EXPERIENCE

Research Contractor, CILAB – Univ. of Bari

Oct 2025 – Mar 2026

Six-month professional research contract at the Department of Computer Science, University of Bari Aldo Moro.

Ph.D. Researcher, CILAB – Univ. of Bari

Oct 2022 – Sep 2025

Design of lightweight and interpretable neural architectures for data-efficient vision tasks.

Visiting Researcher, JADS (Netherlands)

Sep 2024 – Feb 2025

Few-shot semantic segmentation via visual prompting under Dr. R. Brussee. Ongoing collaboration with the group of Prof. U. Kaymak on graph neural networks for leak detection in water networks.

Reviewer & Service

2022 – Present

Reviewer for *IEEE Trans. on Fuzzy Systems*, *Pattern Recognition*, *CVIU*, *Neurocomputing*, *EAAI*, *ECAI*, *ECML-PKDD*, *IJCNN*, *IEEE SMC*, *CVPPA*. Co-organizer and session chair – *International Workshop on Advances in Drone Vision (ADV 2025)*, co-located with ICIAP 2025. Member of INDAM–GNCS (Italian National Group for Scientific Computing).

EDUCATION

Ph.D. Computer Science and Mathematics, Univ. of Bari Aldo Moro – *Doctor Europaeus* label, with distinction 2022 – 2026

Thesis: Sustainable Computer Vision Techniques in Sustainable Domains. Supervisor: Prof. Giovanna Castellano.

M.Sc. Computer Science, Univ. of Bari Aldo Moro, 110/110 cum laude with honors

2020 – 2022

Thesis: Real-time Weed Mapping from Multispectral Drone Imagery for Precision Agriculture.

B.Sc. Computer Science, Univ. of Bari Aldo Moro, 110/110 cum laude

2017 – 2020

SELECTED PUBLICATIONS

De Marinis et al. “Take a Peek: Efficient Encoder Adaptation for Few-Shot Semantic Segmentation via LoRA.” *Pattern Recognition Letters*, 2026.

De Marinis et al. “Label Anything: Multi-Class Few-Shot Semantic Segmentation with Visual Prompts.” *ECAI 2025*.

Khaled et al. “Explaining Fuzzy GNNs for Leak Detection in Water Distribution Networks.” *IFSA–NAFIPS 2025* (Outstanding Paper Award).

De Marinis, Vessio, Castellano. “RoWeeder: Unsupervised Weed Mapping Through Crop-Row Detection.” *ECCV 2024 Workshops*.

Castellano, De Marinis, Vessio. “Weed Mapping in Multispectral Drone Imagery Using Lightweight Vision Transformers.” *Neurocomputing*, 2023.

AWARDS

2025. Outstanding Paper Award, IFSA–NAFIPS 2025 World Congress, for “Explaining Fuzzy GNNs for Leak Detection in Water Distribution Networks”.

2023. Best Paper Distinction, 18th FedCSIS, for “Applying Knowledge Distillation to Improve Weed Mapping with Drones”.

TEACHING & OUTREACH

Lecturer on object detection and semantic segmentation – M.Sc. in Quantum Machine Learning, Ca’ Foscari Univ. of Venice (2026). Teaching assistant – *Programming Languages* and *Computer Science Laboratory*, B.Sc. in CS, Univ. of Bari (2022–24). Invited seminars on few-shot learning, computer vision and drone vision in B.Sc./M.Sc. courses (2022–26). Public engagement at the European Researchers’ Night (2022, 2023, 2025).

SKILLS

Machine Learning	Deep / Few-Shot / Explainable Learning, Computer Vision, Edge AI
Programming & Tools	Python, PyTorch, TensorFlow, OpenCV, Docker, Git, Linux, LaTeX
Languages	Italian (native), English (fluent)