

# Luca Barsellotti

STUDENT RESEARCHER @GOOGLE | PHD STUDENT IN COMPUTER VISION @AIMAGELAB

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I am a **Student Researcher** at **Google** in the Semantic Perception team, led by Dr. Federico Tombari, and **PhD Student** at **AlmageLab** (UNIMORE) under the supervision of Prof. Rita Cucchiara. I am a former **Applied Scientist Intern** at **Amazon**. My main research area is Multimodal Learning in **Computer Vision**, focusing on Open-Vocabulary Segmentation and Vision-Language Robot Navigation.

## Work Experience

### Google STUDENT RESEARCHER

Internship in the Semantic Perception team (led by Federico Tombari), supervised by Maxim Berman

Zurich, Switzerland

Nov. 2025 - Mar. 2026 (Ongoing)

### Amazon APPLIED SCIENTIST INTERN

Research on product image retrieval in the Merlin team (led by Luitpold Staudigl), supervised by Jochen Gast

Berlin, Germany

Apr. 2025 - Sep. 2025

### CNIT • Scuola Superiore Sant'Anna RESEARCH FELLOW

Deep Learning for resource-constrained SmartNICs, Network Traffic Analysis, Autonomous Driving Drones

CNR Area, Pisa, Italy

Jan. 2022 - Oct. 2022

### ION Group MACHINE LEARNING ENGINEER INTERN

Machine Learning and Data Engineering for the analysis of financial instruments (Master's Thesis)

Pisa, Italy

Sep. 2021 - Dec. 2021

## Education

### PhD in ICT (Computer Vision) AIMAGELAB • UNIVERSITY OF MODENA AND REGGIO EMILIA

Modena, Italy

- Research interests: Open-Vocabulary Semantic Segmentation, Vision-Language Robot Navigation
- Supervised by Prof. Rita Cucchiara

Oct. 2022 - Apr. 2026 (Ongoing)

### MSc in Artificial Intelligence and Data Engineering UNIVERSITY OF PISA

Pisa, Italy

- Avg. Grade: 29.47/30 • Final Mark: 110/110 cum laude • Equivalent GPA: 4.0/4.0
- Thesis Title: "Design and implementation of a system for passive data acquisition and automatic classification of financial instruments based on Machine Learning algorithms"

Oct. 2019 - Feb. 2022

### BSc in Computer Science Engineering UNIVERSITY OF PISA

Pisa, Italy

- Avg. Grade: 26.92/30 • Final Mark: 110/110 • Equivalent GPA: 3.5/4.0
- Thesis Title: "Reconstruction of a spectrogram using Context-Encoder architectures based on Convolutional Neural Networks"

Sep. 2016 - Oct. 2019

## Selected Publications

(Full list of publications [here](#))

- [L. Barsellotti\\*](#), L. Bianchi\*, N. Messina, F. Carrara, M. Cornia, L. Baraldi, F. Falchi, R. Cucchiara  
*Talking to DINO: Bridging Self-Supervised Vision Backbones with Language for Open-Vocabulary Segmentation*  
in **ICCV 2025**
- [L. Barsellotti\\*](#), R. Bigazzi\*, M. Cornia, L. Baraldi, R. Cucchiara  
*Personalized Instance-based Navigation Toward User-Specific Objects in Realistic Environments*  
in **NeurIPS Datasets and Benchmarks 2024**
- D. Caffagni\*, F. Cocchi\*, [L. Barsellotti\\*](#), N. Moratelli\*, S. Sarto\*, L. Baraldi\*, L. Baraldi, M. Cornia, R. Cucchiara  
*The Revolution of Multimodal Large Language Models: A Survey*  
in **ACL Findings 2024**
- [L. Barsellotti\\*](#), R. Amoroso\*, M. Cornia, L. Baraldi, R. Cucchiara  
*Training-Free Open-Vocabulary Segmentation with Offline Diffusion-Augmented Prototype Generation*  
in **CVPR 2024**
- [L. Barsellotti\\*](#), R. Amoroso\*, L. Baraldi, R. Cucchiara  
*FOSSIL: Free Open-Vocabulary Semantic Segmentation through Synthetic References Retrieval*  
in **WACV 2024**

ICCV 2025

Honolulu, Hawaii

NeurIPS 2024

Vancouver, Canada

ACL 2024

Bangkok, Thailand

CVPR 2024

Seattle, Washington

WACV 2024

Waikoloa, Hawaii

## Activities

### TEACHING

Feb. 2024 **Lecturer**, *Deep Neural Network Architectures for Segmentation*, Intensive Master: AI and ML for Smart Factory

Remote

### SCHOOLS

Oct. 2025 **ICCV 2025 Doctoral Consortium**, Attendance and presentation

Honolulu, Hawaii

Jul. 2024 **International Computer Vision Summer School (ICVSS)**, Attendance and paper presentation

Scicli, Italy

Sep. 2023 **ELLIS Summer School on Large-Scale AI**, Attendance and project presentation

Modena, Italy

Sep. 2023 **International Summer School on Machine Vision (VISMV)**, Attendance

Padova, Italy

### REVIEWING

**Conferences** ICCV (2025), CVPR (2025, Outstanding Reviewer), BMVC (2024), ECCV (2024), IROS (2024)

**Journals** PAMI (2024), Pattern Recognition (2024), TOMM (2023)