GABRIELE MASCIULLI

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EDUCATION

University of Trento, Italy *Sep. 2024 – Dec. 2026 (expected)*
M.Sc. in Artificial Intelligence Systems GPA: 28.7/30

University of Turin, Italy *Sep. 2021 – Jul. 2024*
B.Sc. in Computer Science 110/110 cum laude

RESEARCH EXPERIENCE

ETH Zürich – Computer Vision and Geometry Group Jul. 2026 – Present
Visiting Researcher (M.Sc. thesis)

- Developed **ExGS**, a 3D Gaussian Splatting model that rebuilds a scene from a few images and object masks in one pass, with each object ready to extract for **robot manipulation** or scene editing.
- Produced better objects than **13 existing methods** on five datasets unseen in training; against the strongest, more than halved the 3D error on ScanNet++ and ran **15× faster**.
- Fine-tuned a large 3D reconstruction model on 4.6k scenes with distributed **PyTorch** on 8 A100 GPUs.

Supervisors: Dr. Dániel Béla Baráth (ETH Zürich), Prof. Elisa Ricci (University of Trento).

PUBLICATIONS

ExGS: Feed-Forward Gaussian Splatting with Extractable Objects *Under review at CVPR 2027*
G. Masciulli, D. Barath, E. Ricci, A. Mazzucchelli.

SELECTED PROJECTS

Few-Shot Adaptation of CLIP Sep. – Nov. 2025
University of Trento

- Built a teacher–student framework that trains **learnable text prompts** and **visual adapters** jointly.
- On Oxford Flowers-102, raised base-class accuracy from the baseline's 72.10% to **94.80%** and harmonic mean from 74.79% to **84.67%**. [Code]

ERL-NEAT: Evolution-Guided Policy Gradient Feb. – Jun. 2026
University of Trento – three-person team

- Co-developed a hybrid of **DDPG** and **NEAT** with a shared replay buffer; on four continuous-control environments, its evolutionary search converged faster than NEAT alone. [Code]

INDUSTRY EXPERIENCE

Iriscube Reply Mar. – Apr. 2024
Software Developer Intern

- Built a **Kotlin Multiplatform** SDK for travel documents: **OCR-based MRZ extraction** and NFC chip reading.

Italambiente Jul. 2024 – Apr. 2025
Software Developer – Remote

- Built the company's CRM and its internal operations app with **Next.js**, **React Native**, **MongoDB**, and **AWS**.

SKILLS

Research areas: 3D reconstruction, feed-forward Gaussian Splatting, vision–language models, reinforcement learning.
ML & tools: Python, PyTorch (multi-GPU training), gsplat, Slurm / HPC clusters, Linux, Git.
Languages: Italian (native), English (C1).

ACTIVITIES

Chi è? – Co-Founder Aug. 2024 – Jun. 2026

- For a startup that authenticates direct sales agents over Bluetooth, secured **€20k** through the 2i3T incubator.

Lead The Future Mentorship – Mentee Sep. 2025 – Present

- Admitted to a one-on-one STEM mentorship program that accepted **under 15%** of applicants.