Dario Loi

✉ dario13.loi@gmail.com | 📞 (+39) 388 812 4560 | 📍 Roma, Italia | ⌗ dario-loi | 🔗 dario-loi

Education

Sapienza University of Roma — Roma, Italia
M.Sc. in Computer Science, GPA: **29.73/30** — Sep 2023 – Oct 2025 (expected)
Percorso d'Eccellenza (Honors Program) – Thesis: **Overlapping Community Hiding with GNNs**.

Sapienza University of Roma — Roma, Italia
B.Sc. in Applied Computer Science and AI, GPA: **28.40/30**, **110/110 cum laude** — Sep 2020 – Jul 2023
Percorso d'Eccellenza (Honors Program) – Thesis: **Motion Video Enhancement using Deep Learning**.

Research & Experience

Research Assistant, AutoBench (LLM-as-a-judge) — Jul 2025 – Present
Enhanced benchmark robustness by modeling ranking as a graph (PageRank, RankCentrality).
M.Sc. Thesis – Overlapping Community Hiding — Nov 2024 – Present
Adversarial manipulation of social networks using **GNNs**, **Reinforcement Learning**, and HPC training.
Research Assistant, Interpretable AI for Malware Detection — Dec 2024 – May 2025
Designed attack-graph generation with GNNs and Transformers; contributed to vulnerability classification.
Teaching Assistant – Computer Architecture & Operating Systems — May – Sep 2024
Led tutorials on RISC-V programming, pipelining, memory hierarchies, and OS fundamentals.
Computer Vision Developer, Sapienza Flight Team — Sep 2023 – Jun 2024
Implemented UAV real-time object detection (YOLOv8); deployed CI/CD pipelines with GitHub Actions.
Undergraduate Researcher – Video Enhancement (Percorso d'Eccellenza) — Jan – Jul 2023
Investigated deep learning techniques for motion video enhancement using convolutional neural networks (CNNs).

Publication

A. D'Orazio, M.R. Briglia, D. Crisostomi, D. Loi, E. Rodolà, I. Masi, *Implicit Inversion Turns CLIP into a Decoder*, arXiv:2505.23161, 2025. arxiv.org/abs/2505.23161.

Selected Projects

- **Graph Neural Networks for POI Recommendation** – Graph Transformer (+13.7% top-20 accuracy) (GitHub).
- **Cloud-Based Sentiment Analysis** – BERT fine-tuning, AWS Lambda deployment (GitHub).
- **Model Meta-Unlearning** – GNN-based meta-learning for selective forgetting (GitHub).
- **StapleGL (Open Source)** – C++ OpenGL wrapper library, ~40 GitHub stars (GitHub).

Honors & Events

International Computer Science Competition, 2025 – Currently Participating in ICSC, at the Qualifications stage.
Xi'An Jiaotong Summer Camp (Huawei & ZTE), 2025 – Selected as 1 of 10 students from hundreds across 5 Sapienza departments. Focused on AI, telecommunications, and cybersecurity.
OxML 2025 – Representation Learning & Generative AI, University of Oxford – Competitive international summer school in advanced AI research.
Deep Learning Workshop, FBK, 2025 – Intensive program at Bruno Kessler Foundation, covering optimization and generative models.

Skills

AI/ML: Deep Learning, Graph Neural Networks, Transformers, Reinforcement Learning
Tools: PyTorch, PyTorch Geometric, HuggingFace, HPC, CUDA, Docker, Git, FastAPI, Gymnasium, OpenCV
Systems/Programming: C++, Python, RISC-V, Golang, OpenGL, SQL, Linux, Bash, Docker, LaTeX
Languages: Italian (native), English (C1, IELTS & Cambridge B2)