DAMIANO IMOLA

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PROFESSIONAL EXPERIENCE

Poste Italiane, Rome, RM   September 2025 – Present
Artificial Intelligence Engineer
- Architected a **multi-agent system** for enterprise document retrieval via **Haystack**, improving query accuracy by 10% and reducing latency by 56%, enabling support on **millions of documents**
- **Led a small team** of 4 engineers in system design and implementation

Leonardo S.p.A., Leonardo Labs, Rome, RM   January 2025 – August 2025
Artificial Intelligence Research Engineer
- Developed a novel **multi-conditioned diffusion framework** to synthesize photorealistic driving scenes, effectively bridging the domain gap between training data and real-world deployment environments
- Mitigated domain shift in perception tasks by generating targeted synthetic datasets for data-scarce urban environments, resulting in **+3% mAP** improvement in object detection performance on unseen domains
- Orchestrated **large-scale** training experiments on the Davinci-1 **HPC** infrastructure, optimizing sampling efficiency and validating the methodology via accepted publication at **ECMR 2025**

SPQR RoboCup Team, SPL League, Rome and Brazil, RM   September 2024 – Present
Vision and Robotics Engineer (Volunteer)
- Re-engineered NAO's walk-in kick engine, reducing CPU workload by **5% +/- 1%** while increasing in-game precision by **3% +/- 0.7%**
- Achieved 3rd place globally in the RoboCup's 2025 **challenge** in Salvador De Bahia, Brazil
- Optimized the NAO's **obstacle detection** system, surpassing prior benchmarks (**4% on speed and 2% on accuracy**)

Capgemini, Rome, RM   November 2021 – March 2022
Software and Machine Learning Engineer
- Designed a 1-D CNN for **stress detection** from audio inputs, achieved **83% accuracy** on the RAVDESS dataset
- Built a full-stack, cross-platform mobile app that integrated real-time stress-level monitoring and personalized wellness recommendations
- **Finalist at Innovation4All** contest for best innovative research project (2021 edition)

Axenta, Rome, RM   September 2018 – September 2020
Full-Stack Software Developer
- Built and deployed **scalable** .NET applications while establishing CI/CD pipelines, in Agile environments
- Redesigned backend API architecture **reducing latency by 7%** and enabling high-throughput automation

PUBLICATIONS

ECMR 2025, Workshop on Learning and Planning for Intelligent Robots
- "Generative Domain Generalization for Autonomous Driving via Diffusion-Based Data Augmentation", *Damiano Imola, et al.*

EDUCATION

University of Rome Sapienza, Rome, RM   September 2023 – July 2025
Master's degree in Artificial Intelligence and Robotics (LM-32)
- **Major**: Artificial Intelligence, *110/110* summa **cum laude + honors**
- **Honors program**: Selected as **Top 1%** of students university-wide

University of Rome Tor Vergata, Rome, RM   September 2020 – July 2023
Bachelor's degree in Computer Engineering (L-08)
- **Major**: Software Engineering, *110/110*
- **Honors program: best student** within the Computer Engineering faculty

SKILLS: Python, C++, PyTorch, CUDA, Docker, Git, Linux