Andrea Gallegati, Ph.D

Digital Technology Strategy Specialist @ Leonardo – Cyber & Security Solutions

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EXPERIENCE

Leonardo – Cyber & Security Solutions
Digital Technology Strategy Specialist

📅 Dec 2025 – Ongoing

- Applied R&D within the **Product & Technology Innovation business unit** and PoC development up to TRL 5–6.
- **Cross-domain synergies** with the Cyber Threat Intelligence, Post-Quantum Cryptography, and the Artificial Intelligence laboratories.
- **Zero Trust (ZTA) and data-centric security (DCS) architectures**, secure-by-design cloud and tactical edge solutions.
- **Technical integration** of Axiomatics PDP and the PrivX PAM by SSH, aligning **architectural governance**.
- Peer-reviewing scientific papers on **Security and Privacy**.

| Project Management | Cloud | Edge Computing | AI |

IDS AirNav – ENAV Group
AI Chapter & Collaborative Design Chapter Member

📅 Mar 2025 – Dec 2025

Bridge internal knowledge gaps and **define the AI Value Proposition** for the organization. Researching and proposing high-impact **AI use cases (RAG, Open-Source LLMs, MCP servers)**, e.g. to automate system log analysis and technical/security documentation (Threat Modeling, Gap Analysis).

| Artificial Intelligence | RAI | MLOps | Fine Tuning | RAG |

Secure-SDLC Engineer (appointed *Security Champion*)

📅 Apr 2021 – Dec 2025

Support the Product Security Manager by helping implement and uphold policies and procedures, monitor security reports through weekly (SAL) meetings, and **fulfill the annual goals declared in the Security Management Plan**. The Product Security Manager and the Security Champions are the "Competence Center" for the Security domain.

| Threat Modeling | SCA | SAST | CI/CD | GDPR | NIS2 |

Sapienza University
PhD Researcher in HPC & Teaching Assistant

📅 Sep 2017 – Jan 2021

- Advanced research leveraging **High Performance Computing (HPC) infrastructures**, across **distributed architectures**.
- Mentored six students contributing to the research programme, **supervising thesis projects in parallel computing**.
- TAing many different classes, besides Aerodynamics Labs.

| Research | Team Leading | Mentoring | HPC | Agile |

PROJECTS

Temple University - Rome Campus
walkintiber - 3D Digital Twin of Rome

📅 Aug 2024 – Present

- Co-founded an immersive 3D model of Rome, allowing users to explore the city virtually via a web interface.
- Built a pipeline integrating live data from OpenStreetMap (OSM) to continuously update and enhance the model with realistic textures and digital elevation, supported by generative AI.
- Engaged TUR students and faculty in "walks in Rome" for hands-on learning in data mapping and VR technologies.

EDUCATION

Sapienza University – DIMA
Ph.D. in Theoretical & Applied Mechanics

📅 Nov 2017 – May 2021

"Droplet condensation in turbulent jets."

| HPC | MPI | C | Multiphase Flows |

Sapienza University – DIMA
M.Sc. in Aeronautical Engineering

📅 Sept 2014 – July 2017

"A consistent framework for mass, momentum and energy exchange in two phase flows: DNS of a turbulent jet in the two-way coupling regime."

110/110 cum laude

| Fortran | PDE | Navier-Stokes Eqs. |

ISAE Supaero – DAEP
Erasmus+ Program

📅 Jan 2016 – Aug 2016   📍 Toulouse, FRA

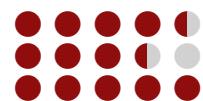"Cost versus accuracy in LES of wall bounded flows in CharlesX."

| python | C++ | bash | French |

LANGUAGES

English (Full Professional)
French
Italian (Native)

Last updated: February 18, 2026