Giovanni Pettorru

Ph.D. in Electronic and Computer Engineering, specializing in Next-Generation Internet of Things (IoT), network security, GPS-free localization, and Location-Based Services (LBS). Proven track record translating high-level research into innovative tech solutions for real-world use cases. Strong communicator with an entrepreneurial mindset, experienced in international research environments and technology acceleration.

Contact

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Education

2022 – 2026
University of Cagliari | Ph.D.
Electronic and Computer Engin.
cum laude

2020-2022
University of Cagliari | Master Deg.
Internet Engineering
110/110 cum laude

2016-2020
University of Cagliari | Bachelor Deg.
Computer Engineering
96/110

2011-2016
ITC G.P. Chironi | Secondary School
Business Information Systems

Languages

Italian: Native

English: B2

Soft Skills

- Public speaking
- Scientific writing
- Entrepreneurial mindset & innovation
- Problem solving & adaptability
- Project management

Other

- 20+ publications in journals and conferences (IEEE/MDPI)
- European Project Design Certificate (Intellera Consulting)

Experience

2025 - 2026
Adjunct Professor - Didactics for Telecommunication Systems

2025 - 2026
Freelance Worker - Developed an IoT-based platform for monitoring agricultural parameters and support decision-making.

2021 - 2026
Tutor & Teaching Assistant - Network Security, Cloud Networking and Telecommunication Networks

2021 - 2023
Freelance Worker - Designed data acquisition algorithms and urban monitoring systems for critical situations.

Innovation & Awards

2026
SERICS - Selected for the Silicon Valley acceleration program in San Francisco with a Network Security project.

2025
Start Cup Sardegna - Top 10 finalist with a Disaster Management System (LENS) project; awarded "Climate Change" special mention.

2025
AgriFuture | Sardegna Ricerche - Selected with a Smart Agriculture project (AGROS) among the top 10 high-tech innovative ideas for the agri-food sector.

2023 – 2025
IEEE ComSoc 3MT/4MT - Three-time Finalist in the Three/Four-Minute Thesis competitions in international stages and two-time third place awarded.

2024
Start Cup Sardegna - Top 10 finalist with a Smart Agriculture (AGROS) project; Second prize (Spoke 7 of the e.INS).

Technical Skills

Networking & Protocols - Expertise in secure, low-latency communication protocols (HTTP/3, WebSocket, MQTT) and wireless communication technologies (LoRa, WiFi, Bluetooth) for IoT.

Cybersecurity - Expertise in IoT Security via telemetry analysis and network traffic classification. Experience in data obfuscation and encryption strategies for privacy-preserving communications.

Data Analytics & Signal Processing - Development of GPS-free localization systems using wireless signal processing.

Full-Stack Development - End-to-end design from Physical Layer to Cloud. Experience using HTML/CSS (Frontend) and Node.js/Express (Backend). Management of MongoDB and SQL databases.

Programming & Tools - Proficiency in Python and MATLAB for algorithm development and simulations. Experience with C/C++ for IoT device programming. Experience with Linux environments, Git version control, and Wireshark for network analysis. Generative AI proficiency.