

# Luca Palazzi

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## EDUCATION & TRAINING

[ 01/11/2025 - Current ]

### PhD. Student

#### ***Computer and Data Science for Technological and Social Innovation - UNIMORE***

Research on deterministic networking for real-time systems, with a focus on Time-Sensitive Networking (TSN). The work investigates protocol selection, interoperability, network configuration, and traffic management challenges to improve predictability, efficiency, and adoption in safety-critical applications such as autonomous driving and avionics.

### Master's Degree

#### ***Computer Science - University of Modena and Reggio Emilia***

**City:** Modena | **Country:** Italy | **Thesis:** Towards Adaptable TSN-based Communications: A Virtual Ethernet Switch for Embedded Real-Time Systems

### Bachelor's Degree

#### ***Computer Science - University of Modena and Reggio Emilia***

**City:** Modena | **Country:** Italy | **Thesis:** Ethernet in Virtualized Real-Time Embedded Platforms

## WORK EXPERIENCE

### ***Minerva Systems***

**City:** Modena | **Country:** Italy

[ 01/10/2021 - Current ]

### Software developer

- Developed drivers for real-time embedded systems, including USB and Ethernet drivers.
- Virtualized TSN-compliant network switches for the Jailhouse hypervisor.
- Conducted research on network traffic management using Time-Sensitive Networking (TSN) protocols for autonomous driving applications in Software-Defined Vehicles (SDVs).

## PUBLICATIONS

### **SPHERE: A Multi-SoC Architecture for Next-Generation Cyber-Physical Systems Based on Heterogeneous Platforms**

**Reference:** A. Biondi et al., in IEEE Access, vol. 9, pp. 75446-75459, 2021

### **Time-sensitive autonomous architectures**

**Reference:** Ferraro, D., Palazzi, L., Gavioli, F. et al. Real-Time Syst 59, 568–608 (2023).