

# Eduardo Rodríguez Sánchez

COMPUTER ENGINEER · HPC MASTER STUDENT

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*"Forty-two, said Deep Thought, with infinite majesty and calm."*

## Education

### UNILU(Université du Luxembourg)

M.S. IN HIGH PERFORMANCE COMPUTING

Belvaux, Luxembourg

Sep. 2025 - May 2026

- Currently in my first semester under the program EUMaster4HPC for a double degree.
- I will spend my first year on Université du Luxembourg, and the second year in Sofia University St. Kliment Ohridski. Together with a summer school in the July 2026.

### GT(Georgia Institute of Technology)

B.S. IN COMPUTER SCIENCE

Georgia, USA

Aug. 2023 - May. 2024

- Comprehensive knowledge of computer systems architecture and implementation with focus on distributed computing environments.
- Proficient in systems-level programming and designing robust networked applications for modern computing infrastructures.
- Relevant coursework: Advanced Operating Systems, Embedded Systems, Database implementation and Cyber Security.
- GPA: 4/4

### UC3M(Universidad Carlos III de Madrid)

Madrid, Spain

Sep. 2020 - Jun. 2023

B.S. IN COMPUTER ENGINEERING

- Solid foundation in mathematics and statistics; as well Artificial Intelligence, Software Engineering, Cyber Security, among many others.
- Completed capstone project: Developed project HERMES (High Performance Engine for Routing and Mirroring Encrypted Streams) in C++, a proxy for load-balancing millions of connections within an internal network.
- Courses include: Operating Systems, Networks, Distributed Systems, Computer Architecture, Software Engineering, Machine Learning and Cryptography.
- GPA: 9.1/10

## Skills

**Low-level / Systems** Linux & Microkernels, Virtualization, Containers, GDB, Valgrind

**Distributed Systems** Kubernetes, Load Balancing, Distributed Storage, 5G Networking

**Observability / Monitoring** Grafana, Prometheus, gRPC

**Programming** C, C++, Go, Python

**Languages** Spanish, English

## Experience

### Ericsson

Seoul, S.Korea

SOFTWARE DEVELOPER

Dec. 2024 - Present

- **5G Core Research and Development:** Developed features for User Plane Analytics and optimization in 5G core networks, including antenna geo-redundancy algorithms, multi-thread contention reduction, and resolution of trouble reports such as segment violation errors.
- **5G RIB Solution Design:** Led the migration and adaptation of a 5G Routing Information Base (RIB) codebase from a remote team to our Madrid office. Redesigned the implementation to enable intra-forward communication between modules within the Kubernetes network, eliminating reliance on external networks or the internet.

### Samsung Electronics (Zhilabs)

Madrid, Spain

SOFTWARE ENGINEER

Jun. 2023 - Oct. 2024

- **Recursive Descent Binary Parser for Network Traces:** Developed a fully functional recursive descent binary parser to efficiently access and collect network error data from traces. Enhanced system performance by providing quick and reliable data extraction for troubleshooting and network optimization.
- **Parallel Network Traffic Simulation:** Upgraded an existing network traffic simulator from sequential execution to parallel simulation across multiple antennas, significantly improving performance and enabling scalable testing of network scenarios.
- **High-Performance Network Trace Proxy:** Designed and implemented a high-performance proxy for network traces, achieving 86 Gb/s throughput for unencrypted packet forwarding. Presented as Bachelor's Thesis during Summer 2024.
- **RAN (Radio Access Network) Assistant:** Participated from PoC stage, designing and implementing a multi-agent system leveraging LLM, NLP, ML, and heuristics. Features included Telco Q&A, anomaly detection, root cause analysis, and solution proposal.