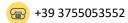
Davide Rovelli

> PhD student in Distributed Systems

Expert in computing systems R&D, currently specializing in the interplay between hardware and software for datacenter services. Wide background, team-worker, versatile

Como, IT

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in www.linkedin.com/in/daviderovelli



Work experience

now ↑ Jun 2022

> Jul 2025

> Apr 2025

> May

2022

Sep

2020

Research collaborator at Cloud innovation office SAP

Walldorf, DE (remote)

- Lead researcher in SAP-Intel collaboration on prototyping an accelerator on FPGA-NIC for consistent replication [1].
- Linux kernel application developer, lead researcher for datacenter failure detector prototype [2].

Research intern - Next Generation Systems and Cloud IBM research Ireland

Dublin, IE

- Lead researcher in CXL-based disaggregated memory replication system

HPC systems engineer, research engineer

ICI – Ecole Centrale de Nantes

Nantes. FR

- Administration and full-stack development of services and applications of a supercomputer system, increasing usability to power future scientific research.
- Certified NVIDIA DLI ambassador for Deep Learning fundamentals.

Deep learning research intern

University of Glasgow

Glasgow, UK

- Development and training of a DNN for a novel 3D image reconstruction application using Tensorflow.

2020

Aug 2020

Jun

Education

now ↑ Jun 2022

PhD student in Distributed Systems (4th year)

USI – Università della Svizzera Italiana Lugano, CH

- Selective synchrony for datacenters: hybrid-time systems for efficient coordination algorithms (e.g. failure detection, consensus) [3].
- Specialized in kernel-bypass technologies, low-level networking,
 SmartNIC offloading and in-network computing.
- 7 theses and projects supervision

Jun 2020 ↑ Sep 2015

MEng Electronics and Software Engineering

University of Glasgow

Glasgow, UK

- First-class degree.

References

Tech skills

Systems: Linux, bash,
C/C++, build tools (make,

CMake), Rust, Cuda
Multi-paradigm: Pytho

Multi-paradigm: Python,

Javascript

Networking: RDMA, eBPF, SmartNIC acceleration

DevOps: Docker, Singularity, Vagrant, Ansible, Kubernetes HPC: Slurm, MPI

Electronics: FPGA design (VHDL, SV, simulation), KiCAD Data science:

Tensorflow, Jupyter, NumPy, Matplotlib
Other: Jira, Office,

LateX

Languages

Selected Publications

[1] Nano-consensus: ultra-fast, quorum-less coordination on the wire; *Rovelli et al.*; **SoCC '25**

[2] FiDe: Reliable and Fast Crash Failure Detection to Boost Datacenter Coordination (link); Rovelli et al.; ATC '25

[3] Digital Cluster Circuits for Reliable Datacenters (<u>link</u>); Rovelli, Eugster; **DSN-S '25**

Hobbies

- Rowing & football
- Music production and instrument making