Niccolo Tosato

✉ niccolo.tosato@phd.units.it
in Linkedin
🌐 https://github.com/NiccoloTosato/

Employment History

11/2022 – 10/2023 **Research scholarship,** RIT, Area Science Park.
Description: *Scientific software maintenance, datacenter benchmark and power monitoring. Development of a profiler to analyze Intel, AMD cpus and NVIDIA gpus power demand.*

04/2020 – 07/2020 **Curricular internship,** Laboratorio di calcolo numerico, Università di Bologna.
Description: *Use of simulation software for fluid dynamics problems and implementation of numerical solvers for NS equations*

Education

2023 – currently **Ph.D student, Università degli studi di Trieste** Applied Data Science & Artificial Intelligence.
Research topics: *Energy modeling of HPC facilities, optimization of AI workloads*

2020 – 2023 **M.Sc., Università degli studi di Trieste** Data science and scientific computing.
Thesis title: *Emergent representations in networks trained with the Forward-Forward algorithm*
Grade: 110/110 e lode

2017 – 2020 **B.Sc., Alma Mater Studiorum - Università di Bologna** Aerospace engineering.
Thesis title: *Implementazione di una soluzione numerica delle equazioni per la convezione naturale*
Grade: 100/110

Research Publications

Submitted, under review

1. N. Tosato, L. Basile, E. Ballarin, G. de Alteriis, A. Cazzaniga, and A. Ansuini, *Emergent representations in networks trained with the forward-forward algorithm*, 2023. arXiv: 2305.18353 [cs.NE].

Miscellaneous Experience

June 2023 **Youth in High-Dimensions, ICTP,** Poster session.

July 2024 **High-dimensional Learning Dynamics, ICML,** Poster session Openreview

Cloud-Computing Module 2, Units, I conducted hands-on sessions and served as teaching assistant Github course page.

Miscellaneous Experience (continued)

🔖 **Foundations of HPC, Units**, I conducted hands-on sessions and served as a teaching assistant. The tutorials I developed are now part of the ORFEO cluster documentation, which I maintain and provide to students as course materials. ORFEO doc.

Skills

Languages	🔖 Good reading, writing and speaking competencies for English.
Coding	🔖 C, C++, Python, R, SQL, LaTeX, Bash, MPI, openMP.
IT	🔖 Linux administration, kubernetes, CEPH.
HPC	🔖 Benchmarking, infrastructure optimization, scientific code deploy maintenance, SLURM, Linux driver development.

Autorizzo il trattamento dei dati personali nelle modalità previste dal Regolamento UE 2016/679