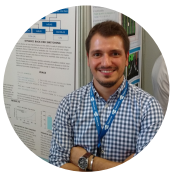
PAOLO VIVIANI

PhD – Senior Researcher

Torino, ITALY paolo.vivi@gmail.com paoloviviani.github.io



EDUCATION

Ph.D., Computer Science

University of Torino

2015 – 2019 Torino, IT

Thesis: *Deep Learning at Scale with Nearest Neighbours Communications*. Supervisor: Marco Aldinucci. Funded by Noesis Solutions.

Master's Degree, Theoretical physics

University of Torino, 104/110

2015 Collegio Universitario "R. Einaudi", Torino

Scholarship winner: "Piano Lauree Scientifiche 2008", granted by Società Italiana di Fisica.

EXPERIENCE

LINKS Foundation

Senior Researcher, Advanced Computing

2021 – present Torino, IT

- **HPC, Machine Learning and Big Data convergence** – acceleration of scientific/technical applications
- **Quantum algorithms and applications** – discrete optimization on neutral atoms machines and quantum annealers
- **ML/DL algorithms for neural signal decoding**
- **Funded research projects** – proposals writing, technical management and execution
- ETP4HPC Working groups member

Noesis Solutions

Reasearch Engineer

2015 – 2021 Novara, IT

- **Machine learning methodologies for engineering modelling and design exploration**
- Development of numerical code and software stack
- Supervisor of one internship
- Technical contact for funded research projects

Funded Research Projects

See **paoloviviani.github.io/projects** for full list and details.

B-CRATOS	H2020-FET Open	2021 – ongoing
ACROSS	H2020-EuroHPC	2021 – ongoing
Lexis	H2020-ICT-11	2021 – 2022
BoSS	IMEC-ICON	2018 – 2019
Fortissimo 2	H2020-FoF project	2016 – 2018
CloudFlow	FP7-I4MS project	2016 – 2017
MACH	ITEA2	2015 – 2016

MAIN INTERESTS

- **High Performance Computing**
- **Machine Learning**
- **Quantum software and algorithms**

SKILLS

Parallel Computing	●●●●●
Quantum Computing	●●●○○
Machine Learning	●●●●○
Research project management	●●●●○
Cloud technologies	●●○○○

Programming

C++	●●●●●
Python	●●●●○
CUDA	●●○○○
Fortran	●●●○○
Git	●●●●●

Soft

Presentations	●●●●○
Communication of results	●●●●●
Formalization of requirements	●●●●○
Decomposition of problems	●●●●●

Tools

- Keras
- MxNet
- Pandas
- BLAS/Lapack
- MPI/OpenMP
- Dask
- PBS/Slurm
- Docker
- Qiskit
- Openstack
- Gitlab CI
- Linux
- IP Networking
- Latex

CISCO CCNA course completed in 2008.

LANGUAGES

Italian	●●●●●
English	●●●●●
French	●●○○○