



Filippo Valle

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WORK EXPERIENCE

Researcher

University of Turin [01/02/2025 – 31/01/2026]

City: Torino | Country: Italy

Develop computational tools for theoretical physics.

Chief technology officer

Elemento [07/2022 – Current]

City: Cuneo | Country: Italy | Website: <https://elemento.cloud>

Chief Technology Officer of the Elemento, a startup which wants to bring the cloud to the mainstream public making it easy, accessible and democratic.

- Developing a next-generation hypervisor called AtomOS
- Working on the multicloud integration
- Managing a distributed team

Researcher

University of Turin [01/02/2023 – 31/01/2025]

City: Torino | Country: Italy | Website: <https://unito.it>

Developing of Machine Learning and Statistical Physics tools for the study of genomic data.

Cloud Architect

Eventvm [01/09/2023 – 31/01/2024]

City: Cuneo | Country: Italy | Website: <https://eventvm.it>

- help them to develop a scalable, multicloud, resilient back-end infrastructure
- coaching their CTO

Developer

Glifico [07/2017 – 30/12/2020]

Website: <https://glifico.com>

- developing the whole platform both the front-end using AngularJS and HTML and the backend with PHP, Postgres and Docker
- support costumers

Internship

Swiss National Supercomputing Centre [08/2013]

City: Lugano | Country: Switzerland | Website: <https://cscs.ch>

- developing model of cosmic rays' flux using parallel computing architectures

Tutor

University of Turin [12/2016 – 05/2019]

City: Turin | Country: Italy | Website: https://fisica.campusnet.unito.it/do/corsi.pl/Show?_id=1ebt

- assist professors during the set up of the experiments
- assist students during laboratory sessions
- assist students on data analysis using Root
- assist students during hands on session of C++

EDUCATION AND TRAINING

PhD in Complex Systems for Life Sciences

University of Turin [10/2019 – 31/01/2023]

City: Turin | Country: Italy | Website: https://dott-scsv.campusnet.unito.it/do/studenti.pl/Show?_id=795411#profilo | Level in EQF: EQF level 8

- Complex Systems
- Data Mining
- Network's theory

Master degree in Physics of Complex Systems

University of Turin [08/2017 – 09/2019]

City: Turin | Country: Italy | Level in EQF: EQF level 7

Thesis: A topic model approach reveals hidden structures in datasets of healthy and cancer tissues. Supervisors: M. Caselle and M. Osella.
Mark 110/110 cum laude and mention

Bachelor degree in Physics

University of Turin [08/2014 – 06/2017]

City: Turin | Country: Italy | Level in EQF: EQF level 6

Thesis about developing a new method to monitor detectors at ALICE's CERN experiment. Supervisor: E. Vercellin and G. Fronzé.
www.infn.it/thesis/
Mark: 109/110

Summer study experience

Pitzer college [05/2012]

City: Los Angeles | Country: United States

LANGUAGE SKILLS

Mother tongue(s): Italian

Other language(s):

English

LISTENING B2 READING B2 WRITING B2

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

Visualization

Affinity Designer / plotly / matplotlib

Version Control Systems

git / GitHub / GitLab

Systems

Linux (Red Hat, Debian) / Docker / KVM virtualization / Visual Studio Code

Sharing Software

Webex / Google Drive

Office

Apple Office (Pages Numbers Keynote) / Libreoffice

PUBLICATIONS

[2024]

Exploring the latent space of transcriptomic data with topic modeling

[2024]

Identification of Interpretable Clusters and Associated Signatures in Breast Cancer Single-Cell Data: A Topic Modeling Approach

[2024]

Inversion dynamics of class manifolds in deep learning reveals tradeoffs underlying generalization

[2022]

A 3D transcriptomics atlas of the mouse nose sheds light on the anatomical logic of smell

[2022]

Multomics Topic Modeling for Breast Cancer Classification

[2021]

Emergent Statistical Laws in Single-Cell Transcriptomic Data

[2020]

A Topic Modeling Analysis of TCGA Breast and Lung Cancer Transcriptomic Data

CONFERENCES AND SEMINARS

[20/06/2021 – 23/06/2021] Venice

SMEEB

I presented my work at the international conference on Stochastic Models and Experiments in Ecology and Biology

Link: <https://archive.is/A6Qdi>

Geneve

iCSC

I attended the inverted Cern School of Computing and help during openMP hands on session

ORGANISATIONAL SKILLS

Group Work

Work under pressure

I published on special-issues with strict deadlines

COMMUNICATION AND INTERPERSONAL SKILLS

Communication and interpersonal skills

- contact skill with younger students gained during my tutor position at university and assisting high school students at home

Blogging

I maintain a [Medium page](#) writing articles about my interests and many on them appeared on the famous page [Towards Data Science](#)

JOB-RELATED SKILLS

Job-related skills

- good command of software version control systems as git
- python, tensorflow, graph-tool
- docker

OTHER SKILLS

Other skills

- trumpet player
- learned how to solve Rubik's cube
- mountaineering: love trekking and skiing
- I am active in the open source community: especially on [GitHub](#)
- I wrote an app to [follow](#) the COVID-19 pandemic in Italy
- I pass the A1/A3 test to drive UAS (drones)

PRESENTATIONS

Presentations

Lesson at the local [Università della terza età](#) about the physics and the universe

[17/04/2024 – 21/04/2024]

Cosa hanno in comune genomi, lego e chatGPT?

Link: <https://ai-sf.it/cisf24/programma>

DRIVING LICENCE

Driving Licence: B

PRIVACY

Privacy

I hereby authorize the use of my personal data in accordance to the art 3 Dlgs 196 of 30 June 2003 and GDPR 679/16
- "European regulation on the protection of personal data"

Cuneo, 02/01/2025



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