



Valerio Gherardi

DATA SCIENTIST

Valencia, España

+34 681 904 907 | [✉ vgherard840@gmail.com](mailto:vgherard840@gmail.com) | [🏠 vgherard.github.io](https://github.com/vgherard) | [📷 vgherard](#) | [📺 vgherard](#) | [🐦](#)
ValerioGherardi

Description

I am a tireless student. My scientific background provides me with a strong analytic mindset, that I enjoy applying to problems and challenges coming from diverse areas. This is partly why, after completing my PhD in Particle Physics, I decided to steer myself in a new direction, and to pursue a career in Data Science - considering that this represented a great opportunity to keep doing what I like and do best, in a dynamic environment that fueled my curiosity.

What motivates me most in my day-to-day work is to bring data-driven business advice to my colleagues, and to enable teams to *measure* the impact of their efforts. On the personal side, I love getting the chance to learn some new trick every day.

Work Experience

Data Scientist - Product Analytics

Valencia, Spain

VOICEMOD

2021-Current

- My main tasks involve experimental design and coordination of A/B tests, analysis of complex user behavioral data, inference and predictive modeling around product decisions. Working closely with the Content and Monetization teams, these analyses usually revolve around the optimisation of activation, engagement and financial KPIs. In addition to that, I often provide support for data-engineering and reporting needs, especially on the data-modeling front.

Education

PhD in Theoretical Particle Physics

Trieste, Italy

INTERNATIONAL SCHOOL FOR ADVANCED STUDIES (SISSA)

2017-2021

- Awarded with honourable mention.

Laurea Magistrale in Fisica

Rome, Italy

UNIVERSITÀ LA SAPIENZA

2015-2017

- Final Grade: 110/110 cum laude

Laurea Triennale in Fisica

Rome, Italy

UNIVERSITÀ LA SAPIENZA

2012-15

- Final Grade: 110/110 cum laude

Technical Skills and Tool Stack

Scientific skills. Experimental Design / Statistical Modeling / Algorithmic Coding / Scientific Communication

Programming languages. R / Python / Bash / C++ / Wolfram / FORTRAN

Database/Warehouse. Snowflake / Redshift / BigQuery / SQLite / PostgreSQL

Reporting and Visualization. Tableau / Looker / Amplitude / RMarkdown / Shiny / Plotly / Streamlit

Data Modeling and Engineering. DBT / Airflow

Data Platforms. mParticle / split.io / Iterable

Cloud Computing. Google Cloud Platform / AWS / DigitalOcean

Deep Learning. Keras / Tensorflow

Misc. Git / Docker

Language Skills

Italian Mother tongue | English Professional | Spanish Professional

Personal Projects

Below are some fun-projects I have worked on - mostly focused on Statistics/Machine-Learning and developed in the R programming language.

`kgrams` ([vgherard.github.io/kgrams/](https://github.com/vgherard/kgrams))

Tools for training and evaluating k -gram language models, R package with C++ backend.

`fcci` ([vgherard.github.io/fcci/](https://github.com/vgherard/fcci))

Support for Feldman-Cousins Confidence Intervals; R/C++ implementation.

`r2r` ([vgherard.github.io/r2r/](https://github.com/vgherard/r2r))

Implementation of hash tables in the R programming language.

Certifications

Data Structures and Algorithms Specialization

UNIVERSITY OF CALIFORNIA SAN DIEGO

• Course description and certificate: <https://coursera.org/share/4fe6c2e914585cb813c93488d20d8f52>

Coursera.org

2021

Natural Language Processing Specialization

DEEPLARNING.AI

• Course description and certificate: <https://coursera.org/share/903e270df65d75737d6c884743509e84>

Coursera.org

2021

Deep Learning Specialization

DEEPLARNING.AI

• Course description and certificate: <https://coursera.org/share/1a79776ec145f7d140c93b95281f5250>

Coursera.org

2020

Data Science Specialization

JOHNS HOPKINS UNIVERSITY

• Course description and certificate: <https://coursera.org/share/3d64e7b0e1038f16fdb2103a71878e53>

Coursera.org

2020

Scientific Publications

1. Feruglio, F., Gherardi, V., Romanino, A., & Titov, A. (2021). Modular invariant dynamics and fermion mass hierarchies around $\mu = i$. *JHEP*, 05, 242. [https://doi.org/10.1007/JHEP05\(2021\)242](https://doi.org/10.1007/JHEP05(2021)242)
2. Gherardi, V., Marzocca, D., & Venturini, E. (2021). Low-energy phenomenology of scalar leptoquarks at one-loop accuracy. *JHEP*, 01, 138. [https://doi.org/10.1007/JHEP01\(2021\)138](https://doi.org/10.1007/JHEP01(2021)138)
3. Gherardi, V., Marzocca, D., & Venturini, E. (2020). Matching scalar leptoquarks to the SMEFT at one loop. *JHEP*, 07, 225. [https://doi.org/10.1007/JHEP07\(2020\)225](https://doi.org/10.1007/JHEP07(2020)225)
4. Gherardi, V. (2020). General correlations to $b \rightarrow s \mu^+ \mu^-$ anomalies from a rank condition. *Nuovo Cim. C*, 43(2-3), 45. <https://doi.org/10.1393/ncc/i2020-20045-0>
5. Alvarenga Nogueira, J. H., Colasante, D., Gherardi, V., Frederico, T., Pace, E., & Salmè, G. (2019). Solving the Bethe-Salpeter Equation in Minkowski Space for a Fermion-Scalar system. *Phys. Rev. D*, 100(1), 016021. <https://doi.org/10.1103/PhysRevD.100.016021>
6. Gherardi, V., Marzocca, D., Nardecchia, M., & Romanino, A. (2019). Rank-One Flavor Violation and B-meson anomalies. *JHEP*, 10, 112. [https://doi.org/10.1007/JHEP10\(2019\)112](https://doi.org/10.1007/JHEP10(2019)112)

Awards

“Admeto Pettinari e Paolo Andreini” Scholarship (01/10/2019)

Awarded by *Cassa di Sovvenzione e Risparmio per i dipendenti della Banca d'Italia*