# Daniele Zago

Padova, Italy | zagodaniele.9@gmail.com | dedzago.github.io | orcid.org/https://orcid.org/0000-0003-0778-7099

*Date of birth: 9 May 1996*

## Work Experience

**Data Scientist** Oct 2024 – Present
*Optit S.r.l.* *Bologna, Italy*
- Research and development of algorithms for periodic clustered vehicle routing problems
- Development of anomaly detection and forecasting models for energy demand

**Teaching assistant** Oct 2022 – Dec 2022
*Department of Developmental Psychology and Socialisation, University of Padua* *Padua, Italy*
- Teaching activities: lectures on introduction to R programming and data analysis

## Education

**University of Padua** Padua, Italy
*Ph.D. in Statistical Sciences* *2021 – 2024*
- Advisor: prof. Giovanna Capizzi; Co-advisor: prof. Peihua Qiu
- Research topic(s): **online outlier detection** and **stochastic optimization**
- Thesis: "*Advanced Statistical Process Monitoring using Simulation-Based Algorithms*"

**University of Florida** Gainesville, FL, USA
*Visiting research scholar, supervisor: Prof. Peihua Qiu* *Jan 2023 – Dec 2023*

**Istituto Nazionale di Fisica Nucleare and University of Perugia** Bertinoro, Italy
*Thirteenth INFN International School on Efficient Scientific Computing* *Oct 2022*
- Efficient C++ programming
- GPU programming with CUDA

**University of Padua** Padua, Italy
*M.Sc. in Statistical Sciences* *2019 – 2021*
- Final grade: **110/110 cum Laude**, GPA: **29.5/30**
- Thesis: "*Bayesian multiscale mixture models via Hilbert curve partitioning*"

**University of Perugia** Perugia, Italy
*Summer school in Mathematics* *Jul 2020*

**University of Padua** Padua, Italy
*B.Sc. in Statistics for Technology and Sciences* *2016 – 2019*
- Final grade: **110/110 cum Laude**, GPA: **29.2/30**

## Conference Presentations

Sep 2025 **Invited talk**. *ENBIS-25 Conference* *Piraeus, Greece*
Optimal constrained design of control charts using stochastic approximations

Oct 2023 **Invited talk**. *2023 INFORMS Annual Meeting* *Phoenix, AZ, USA*
Optimal constrained design of control charts using stochastic approximations

Sep 2022 **Poster presentation**. *Statistical methods and models for complex data* *Padova, Italy*
Profile monitoring based on adaptive parameter learning

Jun 2022 **Poster presentation**. *2022 ISBA World meeting* *Montréal, Canada*
Bayesian nonparametric multiscale mixture models via Hilbert-curve partitioning

## Awards

2025 ENBIS Knowledge Fund, ENBIS 2025 conference *Piraeus, Greece*

2022 Young Travel Award, ISBA 2022 conference *Montréal, Canada*

2018 Mille e una Lode Award 2018 *(top 3% of students)* *University of Padua*

2017 Mille e una Lode Award 2017 *(top 3% of students)* *University of Padua*

## Publications

### Journal articles

Zago, D. (2025). StatisticalProcessMonitoring.Jl: A General Framework for Statistical Process Monitoring in Julia. *Journal of Statistical Software* 113, 1–45. doi: 10.18637/jss.v113.i07

Zago, D., and Capizzi, G. (2024). Alternative Parameter Learning Schemes for Monitoring Process Stability. *Quality Engineering* 36, 560–574. doi: 10.1080/08982112.2023.2253891

Zago, D., Capizzi, G., and Qiu, P. (2024). Optimal Constrained Design of Control Charts Using Stochastic Approximations. *Journal of Quality Technology* 56, 257–275. doi: 10.1080/00224065.2024.2323585

Zago, D., Capizzi, G., and Qiu, P. (2025). An Improved Bisection-Type Algorithm for Control Chart Calibration. *Statistics and Computing* 35, 81. doi: 10.1007/s11222-025-10609-7

Zago, D., Tian, Z., Capizzi, G., and Qiu, P. (2025). A General Framework for Monitoring Mixed Data. *Journal of Quality Technology*, 1–15. doi: 10.1080/00224065.2025.2512164

## Skills

| | |
|---|---|
| Programming | Python, Julia, R, SQL, C++, C, SAS, bash |
| Tools | git, Google Cloud, Microsoft Office |
| Languages | Italian (native), English (fluent, C2), German (moderate), Spanish (moderate) |

## References

**Giovanna Capizzi**
*Full Professor and Head of Department*
Department of Statistical Sciences
University of Padua
giovanna.capizzi@unipd.it

**Peihua Qiu**
*Dean's Professor of Biostatistics*
Department of Biostatistics
University of Florida
pqiu@ufl.edu