# Daniele Zago

Padova, Italy | ⌂ [dedzago.github.io](https://dedzago.github.io) | ⓖ [DedZago](https://github.com/DedZago) | ✉ [zagodaniele.9@gmail.com](mailto:zagodaniele.9@gmail.com) | Ⓓ [0000-0003-0778-7099](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*

**INFN**                                                                                               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**

## 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](https://doi.org/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](https://doi.org/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](https://doi.org/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](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](10.1080/00224065.2025.2512164)

## 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

## SKILLS

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|---|---|
| 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](mailto:giovanna.capizzi@unipd.it)

**Peihua Qiu**
*Dean's Professor of Biostatistics*
Department of Biostatistics
University of Florida
[pqiu@ufl.edu](mailto:pqiu@ufl.edu)