Daniele Zago

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Date of birth: 9 May 1996

Work Experience

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

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**

University of Florida Gainesville, FL, USA
Visiting research scholar *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**
- Topics: Data science, statistics for industry, outlier detection, time series analysis

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**
- Topics: Big data analytics, computational statistics, programming, design of experiments

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. https://doi.org/10.18637/jss.v113.i07

Zago, D., Tian, Z., Capizzi, G., & Qiu, P. (2025). A general framework for monitoring mixed data. *Journal of Quality Technology*, 1-15. https://doi.org/10.1080/00224065.2025.2512164

Zago, D., Capizzi, G., & Qiu, P. (2025). An improved bisection-type algorithm for control chart calibration. *Statistics and Computing*, 35(4), 81. https://doi.org/10.1007/s11222-025-10609-7

Zago, D., Capizzi, G., & Qiu, P. (2024). Optimal constrained design of control charts using stochastic approximations. *Journal of Quality Technology*, 56(3), 257-275. https://doi.org/10.1080/00224065.2024.2323585

Zago, D., & Capizzi, G. (2024). Alternative parameter learning schemes for monitoring process stability. *Quality Engineering*, 36(3), 560-574. https://doi.org/10.1080/08982112.2023.2253891

Skills

Programming	Python, Julia, R, SQL, C++, C, SAS, bash
Other	git, GitHub, Google Cloud, Microsoft Office, Jekyll
Competencies	Outlier detection, stochastic optimization, machine learning
Soft skills	Public speaking, teamwork, project management
Languages	Italian (native), English (fluent, C2), German (moderate), Spanish (moderate)