

# Edoardo Costantini

---

## Personal information

Date of birth 16 October 1994  
Nationality Italian  
Based in Tilburg, Netherlands  
E-mail [costantini.edoardo@yahoo.com](mailto:costantini.edoardo@yahoo.com)  
Personal website <https://edoardocostantini.github.io>  
GitHub <https://github.com/EdoardoCostantini>



---

## Experience

09/2019 - 02/2024 (expected) **Ph.D. researcher**, *Tilburg University*, Department of Methodology and Statistics

- **Software development** — I developed software for addressing missing data in social science surveys in collaboration with the sociology department. I contributed to a variety of existing R packages for the social sciences. I developed numerous web applications to facilitate interaction with my research results.
- **Academic research** — I created innovative algorithms to tackle non-response bias in social surveys and written scientific articles detailing their effectiveness and use cases.
- **Development of educational material** — I designed tutorials and study material for university students to practice and evaluate their computational and statistical skills. I developed a website to share accessible blog posts on statistical concepts (see the 'Digital garden' on my personal website).
- **Frontal teaching** — I taught university master students how to program and perform complex data analyses in R. I recorded instructional videos to facilitate hybrid learning.

08/2018 - 06/2019 **Teaching assistant**, *Tilburg University*, Department of Methodology and Statistics

I held **frontal lectures** and **computer laboratory sessions** for courses on:

- *Computational statistics* (master's level).
- *Statistics and methodology* (master's level).
- *Experimental research methods* (bachelor's level).

03/2017 - 05/2017 **Research assistant**, *IRVAPP*, Trento, Italy

- Data cleaning for a public policy evaluation project.

---

## Education

08/2017 - 08/2019 **Research master**, *Methodology and Statistics for Social and Behavioral Sciences*, Tilburg University, the Netherlands  
*Cum Laude (with honors)*

09/2014 - 06/2017 **Bachelor's degree**, *Sociology*, University of Trento, Italy  
*Cum Laude (with honors)*

---

## Skills

Coding and software R, version controlling (Git), Bash, Python, cluster computing,  $\text{\LaTeX}$ , SPSS  
Web development R Shiny, Hugo, R blogdown, CSS  
Data analysis Multiple imputation, principal component analysis, regression and classification trees, regularized regression, and other machine learning techniques  
English Full Professional working proficiency (TOEFL C1)  
Italian Native speaker  
Dutch Basic communication

---

## Publications

E. Costantini. *gspr: Generalized Supervised Principal Component Regression*, 2023. URL <https://CRAN.R-project.org/package=gspr>. R package version 0.9.4.1.

E. Costantini, K. M. Lang, T. Reeskens, and K. Sijtsma. High-dimensional imputation for the social sciences: A comparison of state-of-the-art methods. *Sociological Methods & Research*, 0(0), 2023a. doi: <https://doi.org/10.1177/00491241231200194>.

E. Costantini, K. M. Lang, and K. Sijtsma. Supervised dimensionality reduction for multiple imputation by chained equations. *arXiv preprint arXiv:2309.01608*, 2023b.

E. Costantini, K. M. Lang, K. Sijtsma, and T. Reeskens. Solving the many-variables problem in mice with principal component regression. *Behavior Research Methods*, 2023c. doi: [doi.org/10.3758/s13428-023-02117-1](https://doi.org/10.3758/s13428-023-02117-1).