

TIAGO CABAÇO

- Statistical software development using R, SQL, Python and Bash;
- Processing high volumes of data to uncover insights using data.table, dplyr and ggplot2 R packages;
- Performing statistical analysis using R and Stan;
- Reporting and visualization using quarto documents, Latex and ggplot2 R package.

PROFESSIONAL EXPERIENCE

Today
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2022

● **Senior R Developer** Civey

📍 Berlin, DE

- Use R to develop packages that use survey statistics to deliver representative poll results from non-representative samples for more than 10.000 polls per day, which are used in all of our customer facing products.
- Develop internal tools using R, SQL and Python, to allow other teams to interact and monitor our survey calculation system, resulting in increased delivery speed and more flexibility to meet customer's requests.
- Support stakeholder's decision-making on the impact and feasibility of new features, by providing data-driven insights using statistical analysis, visualizations, dashboards and dynamic reports.
- Lead the development of a new feature that reports the daily available sample size for a data product, including its integration into a Python scheduler and a PostgreSQL data base, resulting in increased efficiency in user allocation.

2022
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2020

● **R Developer** Civey

📍 Berlin, DE

- Contributed to the development and maintenance of R libraries used to calculate more than 10.000 representative survey results daily.
- Lead the development of a new feature for geographical survey analysis, resulting in a new product.
- Contributed to the development of bash command line tool used to configure the R environment in production, resulting in efficient and safe workflow for new releases to production.

2020
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2016

● **Doctoral Research Fellow** Humboldt-University

📍 Berlin, DE

- Worked with large data (millions of observations), using R to program and test automated quality checking and data manipulation routines.
- Built complex Bayesian computational models using the Stan probabilistic programming language.
- Applied hierarchical Bayesian regression and mixture modeling techniques to account for different aspects of how the data was structured and generated.
- Use of high performance computing clusters and threading in order to provide scalable modeling solutions, reverting in added time to iterate over model building.
- Developed visualizations using ggplot in R to efficiently communicate insights and assess statistical model performance.

CONTACT INFO

✉ tcabaco@pm.me

🌐 github.com/tiagocabaco

☎ +49 176 439 822 51

SKILLS

R package development

Statistical analysis

Probabilistic programming

Effective communication of complex analytical concepts, including public speaking

Data cleaning and pre-processing

Data visualization

Programming Languages

Highly skilled in R, Stan and Latex

Skilled in Bash and PostgreSQL

Familiar with Python

Tools

Git (version control and collaboration)

Quarto reports (dynamic documentation with R)

Redash (dashboard building tool)

Languages

English (Fluent)

Portuguese (Native)

German (A2)

2016
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2015

Research Trainee

Psychological methods group

📍 University of Amsterdam, NL

- Created, maintained an archival data base with historical events from the Psychometric Society, resulting in a publication.
- Developed R based animated network visualizations of sequences of historical events.



EDUCATION

Today
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2016

PhD in Computational Psychology

Humboldt-University

📍 Berlin

- Grant by the International Max Planck Research School on the Life Course.

2014

Erasmus Intensive Program in Mathematical Psychology

University of Tartu

📍 Sagadi, Estonia

2015
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2012

Masters in Clinical Psychology

University of Lisbon

📍 Lisbon, Portugal

For my thesis I developed and deployed an online survey, and self-learned R to implement a non-standard statistical model. All of which resulted in receiving the highest grade with distinction.

2011
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2009

BA in Psychological Sciences

University of Lisbon

📍 Lisbon, Portugal



CIVIC PARTICIPATION

2018
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2017

Student representation

Graduate students representative

📍 Berlin

- Agilized the communication between administration and students.

2014
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2013

Elder Care

Elderly Care Home

📍 Lisbon, Portugal

Supported physiotherapy sessions with the elderly.

2013
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2009

Student representation

Pedagogical Counsel

📍 Faculty of Psychology, University of Lisbon

- As student body representative, I made the connection between students and faculty.
- I was responsible for scheduling the exams for all courses and represented the faculty in an external evaluation process.



PUBLICATIONS

- Wijsen, L. D., Borsboom, D., **Cabaço, T.**, & Heiser, W. J. (2019). *An Academic Genealogy of Psychometric Society Presidents*. *Psychometrika*, 84(2), 562-588.
- Almeida, J., Mahon, B. Z., Zapater-Rabero, V., Dziuba, A., **Cabaço, T.**, Marques, J. F., & Caramazza, A. (2014). Grasping with the eyes: *The role of elongation in visual recognition of manipulable objects*. *Cognitive, Affective, & Behavioral Neuroscience*, 14(1), 319-335.