

# Florian Metwaly

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## EDUCATION

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### Utrecht University

Utrecht, Netherlands

*M.Sc. Methodology and Statistics for the Behavioural, Biomedical and Social Sciences* September 2023 – June 2025

- Thesis: *Causal Inference with Observational Data: Confidence Intervals in Emulated Target Trials*
- Development of a Julia package ([Package Repository](#)) which can be used to apply the sequential Target Trial Emulation framework on observational data sets. Further, implementing the estimation of confidence intervals through bootstrapping and comparing its performance against sandwich variance estimators in a simulation study. All data and the current progress is available on GitHub ([Thesis Repository](#)).
- Supervised by [Dr. Oisín Ryan](#) and [Dr. Wouter van Amsterdam](#).

### University of Turku

Turku, Finland

*B.A. Political Science — Exchange Student*

January 2022 – May 2022

### Goethe-University Frankfurt

Frankfurt, Germany

*B.A. Political Science*

October 2019 – August 2023

- Thesis: *Populism and New Media: Measuring Populist Discourse on Twitter*
- Development of a framework to measure populist appearance on Twitter based on theory. Applying that framework by training supervised machine learning algorithms, comparing their performance, and finally using the best performing one to analyse a large data set of Tweets by German politicians.

## EXPERIENCE

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### Julius Centrum – UMC Utrecht

Utrecht, Netherlands

*Student Teaching Assistant*

September 2024 – Present

- Reviewing and creating teaching materials and tutoring during computer labs.
- Courses: Epidemiology & Big Data, Onderzoeksmethoden (Research Methods), Generalised Linear Models, Klinisch Wetenschappelijk Onderzoek (Clinical Scientific Research)

### Department of Methodology and Statistics

Utrecht, Netherlands

*Student Teaching Assistant*

April 2025 – May 2025

- Summer School: A Gentle Introduction to Bayesian Estimation ([GitHub](#))
- Translating all teaching materials from R (brms) to Python (bambi, PyMC) as additional teaching material for the 2025 summer school
- Supervised by [Dr. Sara van Erp](#).

*Internship — Student Research Assistant*

August 2024 – Present

- Internship on using Bayesian Evidence Synthesis to aggregate evidence from partially overlapping hypotheses. After the internship, the project was continued with the goal of publishing the findings to a scientific journal.
- Conducting a simulation study to investigate the behavior of BES under different scenarios.
- Working title: Bayesian Evidence Synthesis: Aggregating Evidence from Partially Overlapping Hypotheses. The current progress is available on [GitHub](#)
- Supervised by [Prof. Dr. Irene Klugkist](#), [Dr. Duco Veen](#) and [Alfons Edmar](#).

*Student Teaching Assistant*

June 2024 – August 2024

- Reviewing and creating teaching materials for the summer schools and tutoring during computer labs.
- Summer School: A Gentle Introduction to Bayesian Estimation
- Summer School: Advanced longitudinal modeling in Mplus

*Student Research Assistant*

November 2023 – Present

- Research Assistant on the BePrepared Consortium under the supervision of [Dr. Peter Lugtig](#).
- Finding, collecting, and evaluating new and existing data sources that can be used to monitor social behavior during pandemics on various parameters.
- Smaller tasks for Statistics Netherlands (CBS), including labeling data and testing an app developed by CBS.
- Improving and further developing an R-Shiny app to track publications of the Methodology & Statistics Department.

## Chair for Sociology specializing in Quantitative Methods

*Student Research Assistant*

Frankfurt, Germany

*October 2022 – August 2023*

- Research Assistant under the supervision of Prof. Dr. Alexander Schmidt-Catran.
- Support of different research projects by conducting statistical analyses with R, replicating studies, literature reviews, and smaller tasks like creating a survey for future research, data labelling, and proofreading papers.

## TechAcademy e.V.

*Product Development*

Frankfurt, Germany

*April 2023 – August 2023*

- As a student organization TechAcademy e.V. offers various courses and events during the semester to teach coding and product development to other students.
- Responsible for the Python track, where we designed a Data Science project for the students to follow during the semester to learn Python. This included the development of teaching materials and small lectures.
- Organization of social events in which we encourage networking between students with each other and with professionals.

## Bavarian State Institute for Higher Education Research and Planning (IHF)

*Student Research Assistant*

Munich, Germany

*July 2021 – June 2022*

- Finishing different projects started during the internship.

*Internship*

*April 2021 – July 2021*

- Using STATA and R for statistical analyses for the DiHS.c project.
- Using MaxQDA for preparing open-ended survey questions for further evaluations.
- Various literature reviews and smaller student assistant tasks.

## SKILLS

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**Languages:** German (Native), English (Fluent), Dutch (B1), Spanish (B1)

**Programming Languages:** R, Julia, Python, STAN

**Tools:** Git, Mplus, STATA, SPSS, JASP, L<sup>A</sup>T<sub>E</sub>X, MaxQDA