WARD B. EILING

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Personal Profile

Driven Research Master's student in Methodology and Statistics at Utrecht University with a strong academic foundation in communication (writing and presenting), programming, data visualization, and statistical modeling.

Education

Utrecht University **Sep. 2023 – June 2025**
Research Master, Methodology and Statistics (English) *Graduated Cum Laude* *GPA: 8.3/10.0*

University of Groningen **May 2021 – July 2023**
Honours College (extra programme of 45 ECTS; English)

University of Groningen **Sep. 2020 – Aug. 2023**
Bachelor of Science, Psychology (English) *Graduated Cum Laude* *GPA: 8.7/10.0*

Research Experience

Utrecht University, Master Thesis Project **Sep 2024 – present**
↪ Prof. Ellen Hamaker *&* Dr. Jeroen Mulder

- Investigated bias in treatment effect estimation in multilevel linear models with randomized treatment and time-varying endogenous covariates by performing large-scale simulations (parallelized in R) and creating causal graphs.
- Managed reproducible research compendium on GitHub.
- Presented preliminary findings and wrote intermediary research report independently.

University of Groningen *Research Intern* **Oct. 2022 – July 2023**
↪ Dr. Sebastiaan Mathôt *&* MSc Veera Ruuskanen

- Investigated state-dependent pupil dilation and feature selectivity in an experimental study.
- Drafted Ethics Committee proposals, conducted laboratory data collection and calibrated eye trackers.
- Computed perceptual sensitivity and analyzed data using regression, ANOVA, and ROC curves in R.

University of Groningen, Bachelor Thesis Project **Sep. 2022 – July 2023**
↪ Dr. Laura Bringmann *&* Prof. Casper Albers *15 ECTS* *Grade: 9/10*

- Investigated model misspecification in VAR(1) models (related to non-stationarity) by performing a simulation study and empirical analysis in R, comparing cross-validation techniques and predictive accuracy metrics (e.g., MSPE, Mahalanobis distance).
- Collaborated with a research master's student and presented findings through an oral presentation and final report.

University of Groningen *Research Intern* **Sep. 2021 – Aug. 2022**
↪ Dr. Brian D. Ostafin

- Explored the relationship between awe induction and perceived meaning in life in collaboration with fellow students.
- Designed a Qualtrics survey and conducted data collection.
- Analyzed data using ANOVA, planned comparisons, and moderation analyses in SPSS.
- Delivered the methods and results of a research report and presented the findings to an audience.

Work Experience

Utrecht University, Society in the Loop Project *Research Assistant (8 hours/week)* **Oct. 2024 – present**

- Explored available open data and created data visualizations to support stakeholder conversations.
- Identified underrepresented groups or facilities within data sets.
- Explored 3D mapping tools (e.g., Netherlands3D) for digital twin applications.

Utrecht University, Advanced course on using Mplus *Teaching Assistant* **Aug. 2024**
↪ Prof. Ellen Hamaker *&* dr. Jeroen Mulder

- Assisted in the teaching of the Summer School course S23 Advanced Course on Using Mplus, covering topics such as longitudinal mixture modeling, causal inference in cross-lagged panel research, and dynamic structural equation modeling (DSEM).

Utrecht University, Introduction to Research Methods *Teaching Assistant (6 hours/week)* **Sep. 2023 – Nov. 2023**

- Actively taught research methods to two practical groups consisting of more than 20 Bachelor's students.

University of Groningen, Educational Institutional Research *Research Assistant (12 hours/week)* **Sep. 2022 - Sept. 2023**

- Improved Qualtrics surveys regarding the state of education (for students and teachers) in different faculties.
- Preprocessed data with SPSS syntax and made factsheets with advanced Microsoft Excel formula syntax.

University of Groningen, Statistics 2 *Teaching Assistant (10 hours/week)* **Aug. 2022 – Jan. 2023**
- Supervised/taught two practical groups of about 15 students each.
- Assisted students with manual calculations and software exercises (JASP/SPSS) pertaining to varying types of regression (e.g., simple linear, multiple, logistic) and ANOVA.

Team050 *Ambulatory Attendant (6 hours/week)* **Mar. 2022 – Dec. 2022**
- Provided emotional and practical support to children, helping alleviate parental burdens.
- Motivated clients to engage in educational activities and guided clients with planning and structure, resulting in the improvement of grades.
- Enhanced clients' sense of self by providing emotional support.

Awards

Judicium Cum Laude Graduated with the judicium Cum Laude for the Master of Methodology and Statistics. **2025**

Judicium Cum Laude Graduated with the judicium Cum Laude for the Bachelor of Psychology. **2023**

Best in Class, Data Visualization **2021**
Awarded (a book) for creating the best Tableau-based data visualization dashboard in the "Analyzing Data" course.

Projects & Extracurricular Courses

Non-Stationarity and Model Selection *Researcher* **June 2024 – present**
↪ M.Sc. Yong Zhang, Dr. Anja Ernst, Dr. Ginette Lafit, Dr. Laura Bringmann
- Co-authored a manuscript (under submission) for the British Journal of Mathematical and Statistical Psychology, focusing on in-sample and out-of-sample model selection techniques for non-stationary autoregressive (AR) models.
- Evaluated non-stationary AR models (e.g., time-varying, hidden Markov, regime-switching, threshold) using information criteria (AIC, AICc, HQ, BIC) and cross-validation errors on empirical psychopathological dataset.
- Designed and conducted a systematic review on ecological momentary assessment studies using Rayyan.

University of Groningen *A gentle introduction to deep learning* **Dec. 2022**
- Explored topics in 1) machine learning and neural networks; 2) gradient descent, vanishing gradients, training networks; 3) convolutional neural networks and variants; and 4) how to use transformer networks.

Great Learning Academy *Introduction to R* **Sept. 2020 – Jan. 2021**
- The contents of this course pertained basics of R (e.g., basic programming, accessing packages, writing functions).

Technical Skills

Programming Languages	R, Python & MATLAB.
Markup Languages	Markdown (e.g., Quarto) & LaTeX.
Software Applications	RStudio, GitHub, SPSS, JASP, Tableau, Zotero, ATLAS.ti, Anaconda, Mendeley, Rayyan, Microsoft Office & Adobe Acrobat DC.
Languages	Dutch (native) & English (fluent).
Miscellaneous	Exceptional analytical and problem solving skills, strong verbal and written communication skills.

Selected Coursework

M.Sc. Methodology & Statistics (grade)
Bayesian Statistics (10/10)
Causal Inference and SEM (8.5/10)
Computational Inference with R (9/10)
Fundamentals of Statistics (8.5/10)
Introduction to Biomedical Statistics (8/10)
Survey Data Analysis (9/10)
Data Analytics 2: Battling the Curse of Dimensionality (8.7/10)

B.Sc. Psychology (3rd year) (grade)
Experimental Skills (10/10)
Programming for Psychologists (9.5/10)
Introduction to Qualitative Research Methods (8.5/10)
Statistical Solutions to Research Problems in Psychology
Philosophy of Psychology (9/10)

Interests

Academic	Causal discovery, Bayesian statistics, high dimensional data analysis, time-series analysis, philosophy of science, clinical versus statistical prediction, qualitative research & missing data.
Health	Mindfulness, yoga, meditation, running, skiing, snowboarding, cycling, windsurfing & playing guitar.
Computers	Building electronics projects at home & optimizing work-flow.
Other	Reading novels (e.g., Fyodor Dostoevsky) & philosophy (e.g., Alan Watts, Seneca, Marcus Aurelius).