Florence Bockting

Contact

florence.bockting@tu-dortmund.de

florence-bockting.github.io

Languages

German (mother language)
English (fluent)
French (basics)

Programming

R, Python, TensorFlow, STAN
RShiny Apps, RMarkdown, Jupyternotebook
HTML, CSS, JS

Further skills

MS Office, LaTeX
Gimp
Zotero
Git, GitHub, GitHub Pages
Quarto, Sphinx
HPC, Linux

Experiences

Research scientist in the working group „Computational statistics“ (Prof. Dr. Paul-Christian Bürkner)

since June 2023 | Statistics Faculty | TU Dortmund University
Aug 2022 – May 2023 | SC SimTech | University of Stuttgart

Research scientist in the working group „Psychological methods & statistics“ (Prof. Dr. Daniel W. Heck)

Oct 2020 – July 2022 | Psychology Department | Philipps-University of Marburg

Tutor & student assistant (2015 – 2020)

for various lectures and seminars in data ethics, statistics, computational data analysis, Bayesian data analysis, general psychology, experimental psychology

Research assistant (2018/2019)

Qualitative and quantitative market research in the health care sector, Produkt+Markt GmbH, Osnabrück

Project member (2018)

Project: Development of a Matching Platform for Student Skills. My primary responsibility was conducting a needs analysis and conceptualizing the design of the matching platform.

Internships

2017 | qualitative market research in the health care sector, Ipsos GmbH, Hamburg
2016 | Chair of general psychology and methodology, Prof. Dr. Claus-Christian Carbon, University of Bamberg

Education

Master studies in Cognitive Science with majors in artificial intelligence and cognitive psychology

Graduated with distinction | Sept 2018 – Sept 2020 | University of Osnabrück

Bachelor studies in Business Psychology with majors in market research and consumer behavior

Graduated with distinction | Aug 2014 – Aug 2018 | University of applied Science Harz, Wernigerode

Vocational training as marketing communications specialist

Aug 2012 – July 2014 | Dresden Informatik GmbH

Teaching

Master Seminar on Multilevel Modelling (2023/24)

The target audience consists of students in Data Science, Statistics, and Econometrics. The course provides an introduction to the theory and analysis of multilevel models using R, with an exploration of these models

from both Bayesian and frequentist perspectives. The language of instruction is English.

Programming course: Introduction into Python (2023 – 2025)

Students will learn the fundamentals of the Python programming language, as well as tools for documentation with Sphinx, testing with pytest, and version control with Git and GitHub. The language of instruction is English and German.

Supervision of theses (2024/25)

Analysis of different initialization approaches for hyperparameter optimization with mini-batch stochastic gradient descent: A simulation study | Bachelor Thesis | TU Dortmund

Sensitivity analysis and performance evaluation of varying upper thresholds for discrete likelihoods using the softmax-gumbel trick | Master Thesis | TU Dortmund

Supervision of theses (2021/22)

The influence of response scales on the knowledge gain of underlying cognitive mechanisms: The role of uncertainty and truth perception in the Truth Effect | Bachelor Thesis | Philipps-University of Marburg

Empirical test of core assumptions of the Referential Theory: Influence of repetition on perceived coherence | Bachelor Thesis | Philipps-University of Marburg

Identification and testing of relevant psychological factors on truth judgments and the truth effect according to the Referential Theory | Bachelor Thesis | Philipps-University of Marburg

Supervision of theses (2020/21)

Truth Effect — The role of the response scale in truth effect designs with short delay | Bachelor Thesis | Philipps-University of Marburg

Publications & Talks

Bockting, F., Radev S. T., & Bürkner P. C. (2024) Expert-elicitation method for non-parametric joint priors using normalizing flows. Preprint at https://arxiv.org/abs/2411.15826

Bockting, F., Radev S. T., & Bürkner P. C. (2024) Contributed talk: Normalizing Flows for Simulation Based Expert Prior Elicitation. Presented at MathPsych (Society for Mathematical Psychology)

Bockting, F., Radev S. T., & Bürkner P. C. (2024). Contributed talk: Simulation-Based Prior Knowledge Elicitation for Parametric Bayesian Models. Presented at ISBA (International Society for Bayesian Analysis)

Bockting, F., Radev, S. T., & Bürkner, P. C. (2024). Invited talk: Simulation-Based Prior Knowledge Elicitation for Parametric Bayesian Models. First presented at Bayes@Lund.

Bockting, F., Radev, S. T. & Bürkner, P. C. (2024). Simulation-based prior knowledge elicitation for parametric Bayesian models. *Scientific Reports 14*, 17330 (2024). https://doi.org/10.1038/s41598-024-68090-7

Heck, D. W., & **Bockting, F.** (2023). Benefits of Bayesian model averaging for mixed-effects modeling. *Computational Brain & Behavior, 6*(1), 35-49. https://doi.org/10.1007/s42113-021-00118-x

van Doorn, J., Haaf, J. M., Stefan, A. M., Wagenmakers, E. J., Cox, G. E., Davis-Stober, C. P., ..., **Bockting, F.** & Aust, F. (2023). Bayes factors for mixed models: A discussion. *Computational Brain & Behavior, 6*(1), 140-158. https://doi.org/10.1007/s42113-022-00160-3

Bockting, F. & Heck, D. W. (2021). Measuring Individual Differences in the Truth Effect: A formal analysis. Fast Talk at MathPsych

Stephan, A., Walter, S., Anton, T., Barkmann, M., **Bockting, F.**, Dielen, G., Dziomba, L., Lang, A., Ruland, M., & Schütze, P. (2021). *Nachwort. In Turing A. M. Computing Machinery and Intelligence. Können Maschinen Denken?* (pp. 131-201). English/German. Reclam.

Workshops

Nov 2024	Copyright for Computer Programs & Software, TU Dortmund University
Sept 2024	Research Software Engineering Summer School at Karlsruhe Institute of Technology (KIT)
Oct 2022	Theory of Science, Prof. Dr. Zoglauer, University of Stuttgart
Oct 2022	Foundations of Deep Learning for the Social Sciences, University of Tübingen
Sept 2022	The Statistics Wars and Their Casualties (online seminar series), Prof. Dr. Deborah Mayo, Prof. Dr. Roman Frigg, & Prof. Dr. Margherita Harris
Sept 2022	Summer School on Advanced Bayesian Data Analysis with STAN, Dr. Bruno Nicenboim, University of Potsdam
Feb 2022	Interval Hypothesis Testing, Prof. Dr. Daniël Lakens, University of Eindhoven
Dec 2021	Robuste Cognitive Bayesian Analysis, Prof. Dr. Jeffrey N. Rouder, University of California
Oct 2021	Bayesian Evaluation of (informative) Hypotheses, Prof. Dr. Herbert Hoijtink, University of Utrecht
June 2021	Multinomial-Processing-Tree Modeling – Foundations and Recent Advances, Prof. Dr. Edgar Erdfelder & Prof. Dr. Daniel Heck, University of Mannheim
May 2021	Single- vs. Dual-Process Theories, Prof. Dr. Mandy Hütter, University of Tübingen
Feb 2021	Introduction into Bayesian Statistics, Prof. Dr. Daniel Heck, Philipps-University of Marburg

Other Experiences

Volunteer work at a soup kitchen; KANA Dortmund

Volunteer work at a children's home for mentally disabled children and adolescents, Lebenshilfe e.V.

Fellow of the “Studienstiftung des deutschen Volkes” from 2015 to 2020.

This CV was last updated on 2024/11/28