



Christopher Harms

Senior Data Scientist & Analytics Expert

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Professional Summary

Experienced Senior Data Scientist with expertise in machine learning, statistical analysis, and data engineering. Co-Founder of SKOPOS ELEMENTS, building data-driven solutions from research to production. Strong academic background with doctoral research in statistical practice and replicability. Proven track record in leading technical data science projects, implementing ML solutions, and bridging academic rigor with practical business applications.

Professional Experience

Co-Founder & Managing Director

SKOPOS ELEMENTS

2020 - Present

Leading a consultancy that provides data science solutions using statistics, machine learning, and software engineering. Building a team of data scientists and providing individual, data-centered solutions for customers. As Head of AI for the SKOPOS Group, responsible for developing and implementing AI strategies across projects.

- Built and led a team of data scientists and engineers
- Implemented ML solutions improving client outcomes by 40%+
- Developed AI strategy framework adopted across SKOPOS Group

Lead Data Scientist

SKOPOS Research

2019 - 2020

Advancing market research through the implementation of data science and machine learning methods. Led technical initiatives to modernize traditional market research approaches with cutting-edge analytical techniques.

- Implemented machine learning models for market research analysis
- Developed automated data processing and analysis pipelines
- Bridged traditional market research with modern data science approaches

Doctoral Researcher

University of Bonn

2018 - 2023

Academic research on questions of replicability in psychological science and statistical practice (hypothesis testing, statistical modeling, Bayesian statistics). Teaching Master students in psychology.

- Dissertation: "The Replication Crisis in Psychology" (Grade: 1.1 Summa cum laude)
- Advanced statistical practice and replicability methodologies
- Bayesian statistical modeling and hypothesis testing

Education

Dr. rer. nat. (Ph.D.) in Psychology

University of Bonn, Germany

2018 - 2023

Dissertation: "The Replication Crisis in Psychology: Statistical and Meta-Scientific Perspectives" (Grade: 1.1 Summa cum laude)

Focus: Statistical practice, replicability, Bayesian statistics, meta-science

M.Sc. Psychology

University of Bonn, Germany

2016 - 2018

Master thesis: "Statistical validation of data quality using simulation-based methods" (Grade: 1.2)

Focus: Quantitative methods, statistical validation, simulation methods

B.Sc. Psychology

University of Bonn, Germany

2013 - 2016

Bachelor thesis: "The Influence of Genetics and Personality on Soft-Drink Preference: A Neuromarketing Study involving Eye-Tracking Measurements" (Grade: 1.3)

Focus: Statistical analysis, experimental design, neuromarketing

Core Competencies

Technical Skills	Business Skills
<ul style="list-style-type: none">• Machine Learning & AI• Statistical Analysis & Modeling• Python & R Programming• Data Engineering & Pipelines• Bayesian Statistics• Experimental Design	<ul style="list-style-type: none">• Team Leadership• Project Management• Client Consulting• Strategic Planning• Research & Development• Public Speaking & Training
Tools & Technologies	Domain Expertise
<ul style="list-style-type: none">• Python (pandas, scikit-learn, TensorFlow)• R (tidyverse, ggplot2, Stan)• SQL & Database Management• Git & Version Control• Cloud Platforms (AWS, Azure)• Data Visualization (Tableau, Power BI)	<ul style="list-style-type: none">• Market Research• Psychological Research• Meta-Science & Reproducibility• Statistical Consulting• Academic Research• Data Quality & Validation

Selected Publications

- Harms, C. (2021). The Replication Crisis in Psychology: Statistical and Meta-Scientific Perspectives. Dissertation, University of Bonn. doi:20.500.11811/9398
- Thomas, E., Steffens, M., Harms, C., Rossell, S., Gurvich, C., & Ettinger, U. (2020). Schizotypy, Neuroticism and Saccadic Eye Movements: New Data and Meta-analysis. Psychophysiology. doi:10.1111/psyp.13706

- Harms, C., Genau, H., Meschede, C., & Beauducel, A. (2018). Does It Actually Feel Right? A Replication Attempt of the Rounded Price Effect. *Royal Society Open Science*, 5(4). doi:10.1098/rsos.171127
- Harms, C., & Lakens, D. (2018). Making 'Null Effects' Informative: Statistical Techniques and Inferential Frameworks. *Journal of Clinical and Translational Research*, 3(S2), 7. doi:10.18053/jctres.03.2017S2.007
- Harms, C. (2018). A Bayes Factor for Replications of ANOVA Results. *The American Statistician*. doi:10.1080/00031305.2018.1518787
- Harms, C., Jackel, L., & Montag, C. (2017). Reliability and completion speed in online questionnaires under consideration of personality. *Personality and Individual Differences*, 111. doi:10.1016/j.paid.2017.02.015

Complete publication list available at: christopherharms.de

Additional Information

Research Collaborations	Speaking & Teaching
<ul style="list-style-type: none"> • Daniël Lakens (Eindhoven University) • Anne Scheel (Eindhoven University) • Peder Isager (University of Southern Denmark) • Active in reproducibility research community 	<ul style="list-style-type: none"> • Regular speaker at data science conferences • Workshop leader for statistical methods • Guest lecturer at universities • Mentor for junior data scientists • Blog writer (neurotroph.de)
Languages	Interests
<ul style="list-style-type: none"> • German (Native) • English (Fluent) • Statistical Programming Languages 	<ul style="list-style-type: none"> • Open Science & Reproducibility • Statistical Methodology • Data Visualization • Machine Learning Research