Marcel Neunhoeffer

Contact

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Career Path

Academic Employments

Boston University
Researcher, Computer Science
Since 2021

Ludwig-Maximilians-Universität München
Research Associate, Statistics and Data Science
for the Social Sciences and Humanities
Since 2021

University of Mannheim
Research Associate, Quantitative Methods in the Social Sciences
2016–2021

University of California, Berkeley
Lecturer - Information and Cybersecurity, School of Information
2020

Non-Academic Employments

Staatsministerium Baden-Württemberg
Project Staff, Policy and Strategy Department
2016

Bündnis 90/Die Grünen
Campaign Staff in the federal office Berlin, and the regional office Berlin
2013, 2014

Education

University of Mannheim
Ph.D. Political Science (Dr. rer. soc.)
Graduate School of Economic and Social Sciences
Thesis: Generative Adversarial Nets for Social Scientists
Defense Date: March 31, 2023

University of California, Berkeley
Visiting Ph.D. Student, Simons Institute for the Theory of Computing
2019

University of Mannheim
M.A. Political Science
2016

University of Passau
B.A. Governance and Public Policy
2013

Research

Peer-Reviewed Articles

7. Nate Breznau, Eike Mark Rinke, Alexander Wuttke [& 163 others, including **Marcel Neunhoeffer**], 2022. Observing many researchers using the same data and hypothesis reveals a hidden universe of uncertainty. *PNAS* 119 (44): 1-8.

6. Thomas Gschwend, Klara Müller, Simon Munzert, **Marcel Neunhoeffer** & Lukas F. Stoetzer, 2022. The Zweitstimme Model: A Dynamic Forecast of the 2021 German Federal Election. *PS: Political Science & Politics* 55 (1): 85-90.

5. **Marcel Neunhoeffer**, Zihwei Steven Wu & Cynthia Dwork, 2021. Private Post-GAN Boosting. *Proceedings 9th International Conference on Learning Representations.*

4. **Marcel Neunhoeffer**, Thomas Gschwend, Simon Munzert & Lukas F. Stoetzer, 2020. An Approach to Predicting the District Vote Shares in German Federal Elections. *Politische Vierteljahresschrift* 61 (1): 111-130.

3. Lukas F. Stoetzer, **Marcel Neunhoeffer**, Thomas Gschwend, Simon Munzert & Sebastian Sternberg, 2019. Forecasting Elections in Multi-Party Systems: A Bayesian Approach Combining Polls and Fundamentals. *Political Analysis* 27 (2): 255-262.

2. **Marcel Neunhoeffer** & Sebastian Sternberg, 2019. How Cross-Validation Can Go Wrong and What to Do About it. *Political Analysis* 27 (1): 101-106.

1. Lukas F. Stoetzer, Simon Munzert, Thomas Gschwend, **Marcel Neunhoeffer** & Sebastian Sternberg, 2017. Ein strukturell-dynamisches Vorhersagemodell für Bundestagswahlen. *Politische Vierteljahresschrift* 58 (3): 418-442.

Other Publications

1. **Marcel Neunhoeffer**, 2018. Book Review: In-Your-Face Politics: The Consequences of Uncivil Media by Diana C Mutz. *Political Studies Review* 16 (1): NP76.

Articles Under Review

Marcel Neunhoeffer, 2023. A Common Benchmark to Evaluate Multiple Imputation Algorithms.

Marcel Neunhoeffer, 2023. An Introduction to Generative Adversarial Nets in R—The RGAN package.

Mark Bun, Marco Gaboardi, **Marcel Neunhoeffer** & Wanrong Zhang, 2023. Continual Release of Differentially Private Synthetic Data.

Christian Arnold & **Marcel Neunhoeffer**, 2021. Really Useful Synthetic Data – A Framework to Evaluate the Quality of Differentially Private Synthetic Data.

Oliver Rittmann, **Marcel Neunhoeffer** & Thomas Gschwend, 2023. How to Improve the Substantive Interpretation of Regression Results when the Dependent Variable is logged.

Luka Biedebach, Andreas Küpfer, Christian Arnold & **Marcel Neunhoeffer**, 2023. The Role of Hyperparameters in Machine Learning Models and How to Tune Them.

Work in Progress	**Marcel Neunhoeffer**, Daniel Sheldon & Adam Smith, 2023. A Bootstrap-based General-purpose Approach for Statistical Inference with Differential Privacy.
	Marcel Neunhoeffer, Katherine J. Thompson & Mark Bauder, 2022. Using Differentially Private Synthetic Data to Inform the Design Stage of a Sample Survey.
Invited Talks	Social Science Data Lab, Generative Adversarial Nets for Social Scientists, 2020.
	Workshop on Economics of Privacy and Data Labor at ICML, Really Useful Synthetic Data – A Framework to Evaluate the Quality of Differentially Private Synthetic Data with Christian Arnold, 2020.
	International Methods Colloquium, Flexible Multiple Imputation for Social Science using Generative Adversarial Nets, 2019.
Conference & Workshop Presentations	Joint Statistical Meetings (2022) PolMeth Europe (2021) The International Conference on Learning Representations (2021) Theory and Practice of Differential Privacy at CCS (2020) European Political Science Association General Conference (2017, 2019) DAGStat Conference (2019) Annual PSA Methodology Conference (2019) APSA Annual Meeting and Exhibition (2018) Annual Meeting of the Society for Political Methodology (2018) European Consortium for Political Research General Conference (2017)

Outreach and Honors

Public Outreach	Thomas Gschwend & **Marcel Neunhoeffer** (23 January 2020):"CSUler in die Container? Oder wie man doch noch zu einem Bundestag mit 598 Abgeordneten kommen kann." [Put the CSU MPs in temporary offices? Or how a Bundestag with 598 members of parliament can be achieved.] Verfassungsblog.
	Thomas Gschwend, **Marcel Neunhoeffer** & Marie-Lou Sohnius (09 August 2019): "Grünes Umfragehoch - Warum der Hype diesmal bis zur nächsten Wahl dauern könnte" [Green Polling High - Why the hype could carry over to the next election this time.] Tagesspiegel.
	Thomas Gschwend, Thomas König & **Marcel Neunhoeffer** (14 October 2018): "Wie das bayerische Wahlrecht die CSU begünstigt." [How the electoral rules in Bavaria favor the CSU.] Zeit Online.
	Thomas Gschwend, Simon Munzert, **Marcel Neunhoeffer**, Sebastian Sternberg & Lukas F. Stoetzer (23 September 2017): "New German election forecast: Merkel's party will win but lose seats." The Washington Post, Monkey Cage.

Sebastian Sternberg & **Marcel Neunhoeffer** (01 September 2017): "Das Rennen um Platz drei bleibt spannend." [The race for the third place is a tight one.] Tagesspiegel, Causa.

Co-founder and contributor zweitstimme.org, German Federal Election Forecast, 2017–Present.

Honors and Awards	IPID4all Travel Grant, University of Mannheim, Funding for the Research Stay at University of California, Berkeley (3,739 EUR), 2018.
	Publication of the Year Award by the CDSS and GESS at the University of Mannheim for "How Cross-Validation Can Go Wrong and What to Do About it" (1,000 EUR) with Sebastian Sternberg, 2018.

Teaching, Service and Skills

Teaching	**Ludwig Maximilian University of Munich, Department of Statistics** Research Seminar: Data and Privacy? Theoretical and Empirical Challenges and Strategies Graduate (Spring 2022)
	Statistics II for Sociologists Undergraduate (Spring 2021)
	University of Mannheim, School of Social Sciences Multivariate Analyses Graduate (Fall 2016, 2017, 2018, 2019, 2020)
	Advanced Quantitative Methods Graduate (Spring 2017, 2018, 2019, 2020)
	University of California, Berkeley, School of Information Privacy Engineering Graduate (Summer 2020)
	University of Applied Sciences Ludwigshafen Applied Marketing Research Graduate (Spring 2017)
	Professional Teaching Experience Generative Adversarial Networks Data Science Summer School 2022 Online/Hertie School Berlin (August 2022)
	Introduction to Machine Learning CIVICA Data Science Summer School Online/Hertie School Berlin (July 2021)
	Big Data and Social Science GRADE – Goethe Research Academy for Early Career Researchers Frankfurt am Main (June 2019)
	Supervised and unsupervised Machine Learning and Deep Learning Bundesbank, Frankfurt am Main (March 2019)

Introduction to R
Geschäfstelle für Qualitätssicherung Hessen, Eschborn
(February 2018)

Professional Service	Referee Service: *American Political Science Review, British Journal of Political Science, Journal of Politics, Party Politics, Political Analysis, Political Science Research and Methods, Politische Vierteljahresschrift, International Journal of Forecasting, TPDP*
	Member of the Organising Committee for PolMeth Europe 2021
Skills	Software: R, Python, PyTorch, Tensorflow, Keras, Stan; html
	Code Repository: ⦿ github.com/mneunhoe
	Languages: German (native), English (fluent), French (basic)