

Dr. Malte Schierholz

PROFILE	As a statistician, Dr. Malte Schierholz challenges the state of the art to improve best practices in working with social data and machine learning, along with describing the conditions of what works when.	
PERSONAL DETAILS	Date of Birth: 1986-09-21 Nationality: German	
CURRENT POSITION	Senior Researcher & Facilitator: Modernizing Data Collection and Measurement Social Data Science and AI Lab, Department of Statistics, Ludwig-Maximilians-Universität München	
EDUCATION	University of Mannheim , Germany Dr. rer. soc. (Sociology), July 2019 <ul style="list-style-type: none">• Thesis Topic: <i>New Methods for Job and Occupation Classification</i>• Supervisors: Dr. Frauke Kreuter, Matthias Schonlau, PhD LMU Munich , Germany M.Sc., Statistics, May 2014 B.Sc., Statistics with a minor in Economics, Dec 2011 Gymnasium Johanneum , Lüneburg, Germany Abitur (High School Diploma), June 2007 Elk Grove High School , Elk Grove Village, IL, US Exchange Student, August 2004 – June 2005	
PROFESSIONAL EXPERIENCE	Senior Researcher Social Data Science and AI Lab, Ludwig-Maximilians-Universität München	Since Mar 2022
	Visiting Researcher Machine Learning Department, Carnegie Mellon University, USA	Sep 2021 – Feb 2022
	Senior Researcher	Sep 2020 – Aug 2021

Research Group of the Director, Institute for Employment Research (IAB)	
Researcher	July 2014 – Aug 2020
Statistical Methods Research Department, Institute for Employment Research (IAB)	
Analyst (on secondment)	Nov 2018 – Jul 2019
Impact Analysis Unit, Bundesagentur für Arbeit	
Researcher	June 2014 – Dec 2018
Mannheimer Zentrum für Europäische Sozialforschung, University of Mannheim	
Teaching Assistant	May 2011 – Sep 2011
Department of Statistics, LMU Munich	
Research Assistant	Aug 2010 – Oct 2010
German Mouse Clinic, Helmholtz Zentrum Munich, German Research Center for Environmental Health	

PUBLICATIONS **Doctoral Thesis**

1. **Schierholz, Malte** (2019). [New Methods for Job and Occupation Classification](#). PhD thesis.

Selected Publications

2. Dimmelmeier, Andreas; Doll, Hendrik; **Schierholz, Malte**; Kormanyos, Emily; Fehr, Maurice; Ma, Bolei; Beck, Jacob; Fraser, Alex; Kreuter, Frauke (2024). Informing climate risk analysis using textual information - A research agenda. In *Proceedings of the 1st Workshop on Natural Language Processing Meets Climate Change (ClimateNLP 2024)*, 12–26, Bangkok, Thailand. Association for Computational Linguistics. URL: <https://aclanthology.org/2024.climatenlp-1.2>
3. Simson, Jan; Kononykhina, Olga; **Schierholz, Malte** (2023). occupationMeasurement: A Comprehensive Toolbox for Interactive Occupation Coding in Surveys. *Journal of Open Source Software*, **8**(88), 5505. DOI: 10.21105/joss.05505
 - *GitHub*: [Latest version of the toolbox](#)
4. Gruber, Cornelia; Schenk, Patrick; **Schierholz, Malte**; Kreuter, Frauke; Kauermann, Göran (2023). [Sources of Uncertainty in Machine Learning – A Statisticians’ View](#). arXiv preprint arXiv:2305.16703.

5. Kagerl, Christian; **Schierholz, Malte**; Bernd Fitzenberger (2022). Later one knows better: the over-reporting of short-time work in firm surveys. *Journal for Labour Market Research*, **56**(7), 1–19. DOI: [10.1186/s12651-022-00312-9](https://doi.org/10.1186/s12651-022-00312-9)
6. **Schierholz, Malte**; Schonlau, Matthias (2021). Machine Learning for Occupation Coding - A Comparison Study. *Journal of Survey Statistics and Methodology*, **9**(5), 1013–1034. DOI: [10.1093/jssam/smaa023](https://doi.org/10.1093/jssam/smaa023)
 - An associated R-package is available on [GitHub](#)
7. Fitzenberger, Bernd; Kagerl, Christian; **Schierholz, Malte**; Stegmaier, Jens (2021). [Zeitnahe Daten in der Corona-Krise: Von der schwierigen Vermessung der Kurzarbeit](#). IAB-Kurzbericht 24/2021, Nürnberg, 12 S.
While not a scientific journal, the high-quality, public-outreach series ‘IAB-Kurzbericht’ informs public and professional circles about major findings from the IAB.
8. **Schierholz, Malte**; Gensicke, Miriam; Tschersich, Nikolai; Kreuter, Frauke (2018). Occupation Coding During the Interview. *Journal of the Royal Statistical Society: Series A*, **181**(2), 379–407. DOI: [10.1111/rssa.12297](https://doi.org/10.1111/rssa.12297)
9. Ghani, Rayid; **Schierholz, Malte** (2017). Machine Learning. In *Big Data and Social Science. A Practical Guide to Methods and Tools*, I. Foster, R. Ghani, R.S. Jarmin, F. Kreuter, and J. Lane (eds), 147–186, Chapman and Hall/CRC Press. DOI: [10.1201/9780429324383](https://doi.org/10.1201/9780429324383)
 - Second edition published in 2020. [Text available online](#).

RESEARCH GRANTS

1. Co-PI (jointly with Professor Frauke Kreuter), German Research Foundation SCHI 1353/1-2, *New Methods for the Measurement of Occupation* (€78,109/yr (own part), 2 years).
2. Post-Doc stipend for a 6-month stay at the Carnegie Mellon Machine Learning Department, DAAD, *Computer-Assisted Decision Systems for the Social Good*. 09/01/2021–02/28/2022.
3. Co-PI under supervision of Professor Frauke Kreuter (University of Mannheim), German Research Foundation KR 2211/3-1, *New Methods for the Measurement of Occupation* (€106,815/yr), 04/01/2016–03/30/2019.

ACTIVITIES
IN THE
RESEARCH
SYSTEM

Associate Editor:

Journal of Official Statistics

2020 – present

Referee: *European Research Council: Starting and Consolidator Grant Calls, EPJ Data Science, Journal for Labour Market Research, Journal of Official Statistics (JOS), Journal of Survey Statistics and Methodology, Journal of the Royal Statistical Society (Series A), methods, data, analyses (mda), Social Science Computer Review, Survey Methods: Insights from the Field, Survey Research Methods*

Community outreach:

Workshop Series *Applied Data Analysis for the Public Sector*, <https://ada-oeffentliche-verwaltung.de/>

Programming Working Group lead in the *International Partnership on Automatic Job Coding*, <https://www.ipajc.com>

Organization of academic events and extracurricular activities:

Workshop co-organizer “Automatic Classification of Occupation, Industries, and Job Tasks” 2023

ASA DataFest Consultant 2015–2017; 2023, 2025

Member in university committees and academic self-governance:

Postdoc support fund committee (LMU) 2023 – present

Review board for professorship applications 2009, 2010, 2023

Employee representative for research (IAB) 2018-2020

University student council (LMU) 2008-2013

Statistician student council (LMU) 2008-2013

Students’ union executive committee (LMU) 2012-2013

COMPUTER
SKILLS

- Text processing: Microsoft Office, L^AT_EX, Markdown
- Programming: R, Python, SQL
- Cloud environments: Microsoft Azure, Amazon Web Services
- Tools: Git, Stata, Shiny, Stan, MPlus, Tableau, PyCharm, Visual Studio Code, Java, Linux, HTML, XML, CSS, JavaScript, RESTful APIs, Apify, LLMs, Apache Hadoop, Pytorch, ...

LANGUAGES

- German (Native)
- English (Fluent)
- Spanish (High-Intermediate Level, DELE Nivel B2)
- Latin (Latinum)