Curriculum Vitae – Prof. Dr. Carston Eickhoff

Personal Data

Title	Prof. Dr.
First name	Carsten
Name	Eickhoff
Current position	Professor (W3) and Director
Current institution(s)/site(s), country	University of Tübingen, Germany
Identifiers/ORCID	https://orcid.org/0000-0001-9895-4061

Qualifications and Career

Stages	**Periods and Details**	
Degree programs	**2005 - 2008**	Dipl. Inf. (FH), FHDW Hannover, Hannover, Germany
	2008 - 2009	M.Sc. (Artificial Intelligence), The University of Edinburgh, UK
Doctorate		2009 – 201414.10.2014, advisor: Arjen P. de Vries, **subject**: "Contextual Multidimensional Relevance Models" TU Delft, Faculty of EEMCS, Delft, The Netherlands
Stages of academic/professional Career	**since 2022**	Professor (W3) and Director, Institute for Applied Medical Informatics, University of Tübingen
	since 2022	Scientific Director, Medical Data Integration Center (meDIC), Tübingen University Hospital
	since 2022	Adjunct Professor, Brown University, USA
	2018 - 2022	Manning Assistant Professor, Brown University, USA
	2017	Visiting Fellow, School of Medicine, Harvard University, USA
	2014 - 2017	Postdoc, Department of Computer Science, ETH Zurich, Switzerland

Activities in the Research System

Positions

2025 - 2028 Steering Committee Member, ACM ICTIR
2022 - 2025 Treasurer, ACM SIGIR
2023 Award Selection Committee Member, ECIR
2022 Reproducibility Track Chair, ECIR
2020 - now Steering Committee Member, CLEF
2020 - now Senior Program Committee Member, ECIR
2020 Co-Chair, CLEF Labs Organizing Committee
2019 Doctoral Consortium Chair, ACM WSDM
2018 Doctoral Consortium Chair, AAAI HCOMP
2018 Proceedings Chair, ACM SIGIR
2017 - now Senior Program Committee Member, ACM SIGIR
2016 - now Senior Program Committee Member, ACM WSDM

Teaching

2024 – now Understanding Language Models, University of Tübingen

2023 – now Introduction to Artificial Intelligence, University of Tübingen
2023 – now Modern Search Engines, University of Tübingen
2023 – now Natural Language Processing, University of Tübingen
2019 – 2021 AI in Biomedicine, Brown University
2016 – 2017 Advanced Topics in IR & NLP, ETH Zurich
2016 Machine Learning, ETH Zurich
2014 – 2016 Research in Computer Science, ETH Zurich

Panels (selected)

- German Research Foundation (DFG)
- US National Science Foundation (NSF)
- Swiss National Science Foundation (SNSF)
- European Commission (EC)

Supervision of Researchers in Early Career Phases

Dissertation Projects

2025 – now Miriam Rateike
2024 – now Siran Li
2024 – now Gregory Polyakov
2023 – now Florian Rottach
2021 – now Michal Golovanevsky
2021 – now Catherine Chen
2021 – now Tasallah Abdullahi
2020 – now Ruochen Zhang
2020 – 2025 William Rudman Jr. (Postdoc at UT Austin, title of dissertation: “Geometric Foundations of Large Language Model Representations”)
2020 – 2025 John Merullo (Research Scientist at Goodfire Inc., title of dissertation: “Simple Mechanisms Underlying Complex Behaviors in Transformer Language Models”)
2019 – 2023 Georgios Zerveas (Senior Applied Scientist at Microsoft Turing, title of dissertation: “Improving Information Retrieval through Contextual Ranking with Large Language Models”)
2019 – 2022 Krishna Nand Keshava Murthy (Data Scientist at Memorial Sloan Kettering Cancer Center, title of dissertation: “Knowledge Informed AI Solutions for Computer Assisted Radiology”)
2018 – 2021 Zhizhong Chen (Software Engineer at Twitter, title of dissertation: “Data-Driven Reasoning for Personalized Healthcare Mortality Forecasting & Physics-Inspired Information Retrieval Systems”)

Postdocs

2024 – now Shresta Ghosh
2020 – now Seyed Ali Bahrainian
2020 – 2023 Augusto Garcia-Agundez (Postdoc at UCSF)
2020 – 2022 Daniel Cohen (Senior Research Scientist at DataMinr)

Clinician Scientists

2021 – 2022 Joshua Kemp (Assistant Professor at Brown University)
2021 – 2022 Taylor Burke (Assistant Professor at Harvard University)
2020 – 2022 Maya Vadiveloo (Associate Professor at the University of Rhode Island)

Fellowships mentored

2022 – 2026 Tassallah Abdullahi, Computational & Data Science Fellowship. ACM SIGHPC, $60,000
2022 – 2023 Kevin Du, Fulbright Research Award. U.S. Department of State, $24,000
2022 – 2023 Joshua Kemp, AdvanceCTR Pilot. National Institutes of Health, $37,430
2021 – 2026 Taylor Burke, NIH/NIMH K23. National Institutes of Health, $978,240
2022 – 2025 Augusto Garcia-Agundez, (Marie Sklodowska-Curie Fellowship). European Commission, € 245,732
2020 – 2021 Seyed Ali Bahreinian, Early Postdoc Mobility Fellowship. Swiss National Science Foundation (SNSF), CHF 75,450
2019 – 2020 Yuanfei Dai, Chinese Government Scholarship. China Scholarship Council (CSC), $30,000

Scientific Results
Category A

* First author, ** senior author, [OA]: open access

1. ** Rudman W, **Eickhoff C**. "Stable Anisotropic Regularization".
   In Proceedings of ICLR, 2024; doi: 10.48550/arXiv.2305.19358

2. ** Chen C, Merullo J, **Eickhoff C. "**Axiomatic Causal Interventions for Reverse Engineering Relevance Computation in Neural Retrieval Models".
   In Proceedings of ACM SIGIR. 2021. doi: 10.1145/3626772.3657841

3. ** Zerveas G, Jayaraman S, Patel D, Bhamidipaty A, **Eickhoff C**. "A transformer-based framework for multivariate time series representation learning".
   In Proceedings of ACM SIGKDD, 2021; doi: 10.1145/3447548.3467401

4. ** Cohen D, Mitra B, Lesota O, Rekabsaz N, **Eickhoff C**. "Not all relevance scores are equal: Efficient uncertainty and calibration modeling for deep retrieval models".
   In Proceedings of ACM SIGIR, 2021; doi: 10.1145/3404835.3462951

5. ** Rekabsaz N, Lesota O, Schedl M, Brassey J, **Eickhoff C**. "TripClick: The log files of a large health web search engine".
   In Proceedings of ACM SIGIR, 2021; doi: 10.1145/3404835.3463242

6. Rank N, Pfahringer B, Kempfert J, Stamm C, Kühne T, Schoenrath F, Falk V, **Eickhoff C**, Meyer A. "Deep-learning-based real-time prediction of acute kidney injury outperforms human predictive performance".
   NPJ digital medicine, 2020; doi: 10.1038/s41746-020-00346-8)

7. ** Meyer A, Zverinski D, Pfahringer B, Kempfert J, Kuehne T, Sündermann SH, Stamm C, Hofmann T, Falk V, **Eickhoff C.** "Machine learning for real-time prediction of complications in critical care: A retrospective study".
   The Lancet Respiratory Medicine. 2018. doi: 10.1016/S2213-2600(18)30300-X

8. ** **Eickhoff C**. "Cognitive biases in crowdsourcing".
   In Proceedings of the 11th ACM international conference on web search and data mining. 2018; doi: 10.1145/3159652.3159654

9. * **Eickhoff C**, Dungs S, Tran V. "An eye-tracking study of query reformulation".
   In Proceedings of ACM SIGIR, 2015; doi: 10.1145/2766462.2767703

10. * **Eickhoff C**, Harris CG, de Vries AP, Srinivasan P. “Quality through flow and immersion: Gamifying crowdsourced relevance assessments”.
In Proceedings of ACM SIGIR, 2012; doi: 10.1145/2348283.2348400

Academic Distinctions (selected)

2024	Computer Science Departmental Teaching Award (University of Tübingen)
2022	Best Paper Award, IEEE Intl. Conf. on Machine Learning and Applications
2022 – 2025	Treasurer, ACM Special Interest Group on Information Retrieval (SIGIR)
2022	Manning Endowed Chair of Medical Science, Brown University, USA
2019	Best Short Paper Award, European Conference on Information Retrieval
2019	Karen T. Romer Undergraduate Research & Teaching Award
2015	Best Paper Honorable Mention, ACM SIGIR