

## Professional Experience

- 2020 – 2021 **Startup project**  
Video conversation-based meetup app
- 2018 – 2019 **Internship**, *Microsoft Research*, Cambridge, UK  
Network traffic prediction
- 2014 – 2018 **TA-ing**, *Saarland University*  
Operating systems, computer graphics, programming, information systems, software internship
- 2012 – 2013 **Internship**, *Apptastic*, Sydney  
Android development

## Education

- Since 2017 **PhD in CS**, *Max Planck Institute for Software Systems (MPI-SWS)*, Saarbrücken  
Advised by Prof. Krishna P. Gummadi.
- 2016-2017 **PhD preparatory program**, *Saarbrücken Graduate School of Computer Science*  
GPA 1.4\*
- 2013-2016 **Bachelor studies**, *Saarland University*  
Computer science with mathematics minor, GPA 1.6\*
- 2004–2012 **High school**, *Otto Hahn Gymnasium Saarbücken*  
Abitur GPA 1.0\*

\*German grading system: 1.0 best, 4.0 pass, 5.0 fail

## Publications

- TMLR 2024 **Understanding the Role of Invariance in Transfer Learning**, Till Speicher, Vedant Nanda, Krishna P. Gummadi
- NeurIPS 2023 **Diffused Redundancy in Pre-trained Representations**, Vedant Nanda, Till Speicher, John P. Dickerson, Krishna P. Gummadi, Soheil Feizi, Adrian Weller
- ICML 2022 **Measuring Representational Robustness of Neural Networks Through Shared Invariances**, Vedant Nanda, Till Speicher, Camila Kolling, John P. Dickerson, Krishna P. Gummadi, Adrian Weller
- KDD 2018 **A Unified Approach to Quantifying Algorithmic Unfairness: Measuring Individual & Group Unfairness via Inequality Indices**, Till Speicher\*, Hoda Heidari\*, Nina Grgic-Hlaca, Krishna P. Gummadi, Adish Singla, Adrian Weller, Muhammad Bilal Zafar, \*equal contribution
- FAccT 2018 **Potential for Discrimination in Online Targeted Advertising**, Till Speicher, Muhammad Ali, Giridhari Venkatadri, Filipe Nunes Ribeiro, George Arvanitakis, Fabrício Benevenuto, Krishna P. Gummadi, Patrick Loiseau, Alan Mislove

ICML Workshop 2017 **Reliable Learning by Subsuming a Trusted Model: Safe Exploration of the Space of Complex Models** @ Reliable Machine Learning in the Wild Workshop 2017, [Till Speicher](#), Muhammad Bilal Zafar, Krishna P. Gummadi, Adish Singla, Adrian Weller

ACL 2014 **A Generalized Language Model as the Combination of Skipped n-grams and Modified Kneser Ney Smoothing**, Rene Pickhardt, Thomas Gottron, Martin Körner, Paul Georg Wagner, [Till Speicher](#), Steffen Staab

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## Pre-prints

2024 **Towards Reliable Latent Knowledge Estimation in LLMs: In-Context Learning vs. Prompting Based Factual Knowledge Extraction**, Qinyuan Wu, Mohammad Aflah Khan, Soumi Das, Vedant Nanda, Bishwamittra Ghosh, Camila Kolling, [Till Speicher](#), Laurent Bindschaedler, Krishna P. Gummadi, Evimaria Terzi

2024 **Understanding Memorisation in LLMs: Dynamics, Influencing Factors, and Implications**, [Till Speicher](#), Mohammad Aflah Khan, Qinyuan Wu, Vedant Nanda, Soumi Das, Bishwamittra Ghosh, Krishna P. Gummadi, Evimaria Terzi

2023 **Pointwise Representational Similarity**, Camila Kolling, [Till Speicher](#), Vedant Nanda, Mariya Toneva, Krishna P. Gummadi

2020 **Unifying Model Explainability and Robustness via Machine-Checkable Concepts**, Vedant Nanda, [Till Speicher](#), John P. Dickerson, Krishna P. Gummadi, Muhammad Bilal Zafar

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## Skills

ML & data science: PyTorch, Transformers, Lightning, Pandas, Numpy, DeepSpeed, etc.

Web & mobile: React, Typescript, React Native, Expo, FastAPI, Hasura, PostgreSQL, etc.

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## Other Academic Activities

Reviewing NeurIPS 2022 & 2024, ICML 2022 (top 10% reviewer) & 2023, ICLR 2023, RAI Workshop @ ICLR 2021, FILA Workshop 2020

2019 **MLSS**, *Machine Learning Summer School*, London

2015-2017 **Scholarship**, *Studienstiftung des deutschen Volkes*, Less than 1/3 of the top 5-10% of students selected  
Afterwards served as selection committee member

2012 **Google Science Fair**  
Regional finalist

2012 **German National Science Competition**, *Jugend Forscht*  
4th place at national level in category mathematics/computer science, multiple special awards

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## Sports

Since 2015 **Triathlon**, competitive at regional (2 x state champion), national and international level

Since 2011 **Coaching**, junior and adult groups in rescue swimming (volunteer)

Until 2012 **Rescue swimming**, competitive at national and international level (world championship)

Until 2012 **Swimming**, competitive at regional level (multiple times age group state champion)