

Experience

- 06/2025 – **Research Assistant, LMU Munich**
present Research group of Prof. Dr. Feuerriegel, working on machine learning methodology with a focus on causal inference, generative models, synthetic data, and interpretability.
- 03/2023 – **Intellectual Property & Technology, Siemens, Munich**
02/2025 Prior-art research, state-of-the-art analyses, and claim-chart construction for computer-science-related patents.
- 04/2024 – **Tutor, LMU Munich**
10/2024 Tutor for “Introduction to Quantum Computing”; student support and grading of exams and exercises.
- 08/2020 – **Cybersecurity Analyst, Siemens, Munich**
09/2021 Prepared CVE-based security notifications, including impact assessment and CVSS scoring.

Publications

- 2026 **Brockschmidt, M.**, Schröder, M., Feuerriegel, S. *SurvDiff: A Diffusion Model for Generating Synthetic Data in Survival Analysis*. **ICML 2026 Spotlight**. [link].
- 2026 **Brockschmidt, M.**, Thies, S. M. A. R., Schröder, M., Frauen, D., Melnychuk, V., Muschalik, M., Hüllermeier, E., Feuerriegel, S. *ConfoundingSHAP: Quantifying Confounding Strength in Causal Inference*. Preprint. [link].
- 2026 Frauen, D., **Brockschmidt, M.**, Hess, K., Ma, H., Ma, Y., Maarouf, A., Schröder, M., Schweisthal, J., Wang, Y., Deviyani, A., Parbhoo, S., Krishnan, R. G., Feuerriegel, S. *Causal Methods for LLM Development and Evaluation*. **KDD 2026**. [link].
- 2026 Javurek, E., Frauen, D., **Brockschmidt, M.**, Schweisthal, J., Feuerriegel, S. *Amortizing Causal Sensitivity Analysis via Prior Data-Fitted Networks*. Preprint. [link].
- 2026 Ciora, O.-A., Welzel, J., Frauen, D., Schröder, M., **Brockschmidt, M.**, Amad, H., Callender, T., van der Schaar, M., Feuerriegel, S. *OncoSynth: Synthetic Data Generation for Treatment Effect Estimation in Oncology*. Preprint. [link].

Talks

Contributed Presentations

- 2026 **Helmholtz AI Conference (HAICON 2026), Munich**
Presented *SurvDiff: A Diffusion Model for Generating Synthetic Data in Survival Analysis*.

Education

- 06/2025 – **PhD in Computer Science, LMU Munich**
present Anticipated graduation: Autumn 2029.
- 04/2023 – **MSc in Computer Science, LMU Munich**
03/2025 Thesis: *An Evolutionary Algorithm with Similarity-Based Variation for Job-Shop Scheduling*.
- 04/2020 – **BSc in Computer Science plus Mathematics, LMU Munich**
04/2023 Thesis: *Updating our beliefs in Bayesian Networks – a complexity analysis*.
- 09/2018 – **Mathematical Science, University of Galway, Ireland**
12/2019 Achieved First Class Honours in First Year before relocating to Germany to pursue a different study track.
- 08/2024 **CASEUF Summer Program, FWU, Japan**

Awards and Volunteering

- 10/2019 – **Deutschlandstipendium, LMU Munich**
09/2024 National merit-based scholarship for academic excellence and community engagement.
- 11/2020 – **Student Council Member, LMU Munich, Mathematics & Computer Science**
02/2022 Student representation, including work on faculty appointment committees.
- 2018 **Presidential Award, University of Galway, Ireland**

Research Interests & Skills

- Research Causal inference, generative models, synthetic data, tabular ML, survival analysis, interpretability, healthcare ML.
- Programming Python, C, Java, Bash.
- Tools PyTorch, scikit-learn, XGBoost, pandas, NumPy, Git, Linux, Jupyter.

Languages

German native, English C1.