




Nil-Jana Akpinar

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Education

Carnegie Mellon University <i>Ph.D. in Statistics and Machine Learning (joint), GPA 4.0/4.0, <u>Thesis</u></i>	Aug 2018 - Aug 2023 Pittsburgh, PA
Carnegie Mellon University <i>M.Sc. in Statistics, GPA 4.0/4.0</i>	Aug 2018 - May 2020 Pittsburgh, PA
University of Freiburg <i>M.Sc. in Mathematics</i>	Oct 2015 - Jul 2018 Freiburg, Germany
University of Freiburg <i>B.sc. in Economics</i>	Oct 2013 - Sept 2017 Freiburg, Germany
University of Freiburg <i>B.Sc. in Mathematics</i>	Oct 2012 - Sept 2015 Freiburg, Germany

Experience

Amazon AWS AI/ML <i>Postdoctoral Scientist, Responsible AI</i>	Sept 2023 - Seattle, WA
LinkedIn Corporation <i>Artificial Intelligence - Machine Learning Engineering Intern, Responsible AI</i>	May 2021 - Aug 2021 Sunnyvale, CA
LinkedIn Corporation <i>Fairness and Privacy Research Engineering Intern, Anti-Abuse AI</i>	May 2020 - Aug 2020 Sunnyvale, CA
Carnegie Mellon University <i>Graduate Research Assistant, Advisors: Alexandra Chouldechova & Zachary C. Lipton</i>	Aug 2018 - Aug 2023 Freiburg, Germany
University of Freiburg <i>Research Assistant, Information System Research</i>	Apr 2016 - Jul 2018 Freiburg, Germany

Selected Publications ([Google Scholar](#))

- Nil-Jana Akpinar**, Martin Bertran, Rongting Zhang, Jamie Morgenstern, Michael Kearns, Aaron Roth (2024) *Multicalibration as Defense for Membership Inference Attacks*. In preparation.
- Nil-Jana Akpinar**, Sina Fazelpour (2024) *Authenticity and exclusion: social media algorithms and the dynamics of belonging*. In preparation.
- Jaqueline Maasch, Violet Chen, Agni Orfanoudaki, **Nil-Jana Akpinar**, Kyra Gan (2024) *Causal discovery for Fairness in Liver Allocation*. In preparation.
- Nil-Jana Akpinar**, Zachary C. Lipton, Alexandra Chouldechova (2024) *The Impact of Differential Feature Under-reporting on Algorithmic Fairness*. FAccT 2024, [arXiv:2401.08788](https://arxiv.org/abs/2401.08788).
- Nil-Jana Akpinar**, Manish Nagireddy, Logan Stapelton, Hao-Fei Cheng, Haiyi Zhu, Steven Wu, Hoda Heidari (2022) *A Sandbox Tool to Bias(Stress)-Test Fairness Algorithms*. EAAMO 2022 poster, preprint [arXiv:2204.10233](https://arxiv.org/abs/2204.10233).
- Nil-Jana Akpinar***, Leqi Liu*, Dylan Hadfield-Menell, Zachary C. Lipton (2022) *Counterfactual Metrics for Auditing Black-Box Recommender Systems for Ethical Concerns*. Responsible Decision Making in Dynamic Environments Workshop, ICML 2022.
- Nil-Jana Akpinar**, Cyrus DiCiccio, Preetam Nandu, Kinjal Basu (2022) *Long-term Dynamics of Fairness Intervention in Connection Recommender Systems*. AIES 2022.
- Nil-Jana Akpinar**, Maria De-Arteaga, Alexandra Chouldechova (2021) *The effect of differential victim crime reporting on predictive policing systems*. FAccT 2021.
- Nil-Jana Akpinar**, Aaditya Ramdas, Umut Acar (2020) *Analyzing Student Strategies In Blended Courses Using Clickstream Data*. EDM 2020. Presentation recording.
- Nil-Jana Akpinar**, Bernhard Kratzwald, Stefan Feuerriegel (2020) *Sample Complexity Bounds for Recurrent Neural Networks with Application to Combinatorial Graph Problems*. AAAI student abstract, preprint [arXiv: 1901.10289](https://arxiv.org/abs/1901.10289), [Poster](#).
- Nil-Jana Akpinar**, Simon Alfano, Gregory Kersten, Bo Yu (2017) *The Role of Sentiment and Cultural Differences in the Communication Process of e-Negotiations*. GDN 2017.

* Equal contribution

Honors and Awards

- Amazon Graduate Research Fellowship (2021)
- Invited to Doctoral Consortium: FAccT (2021, 2022), EAAMO (2022)
- AAAI best three minute student presentation award (2020)
- German National Academic Foundation Scholarship (2013-2018) & Research Visit Grant (2016)
- Economics Award by Südwestmetall (2012)
- Mathematics Award by the German Mathematical Society (2012)

Teaching and Mentorship

Teaching Assistant, Carnegie Mellon University

- Statistical Graphics and Visualization (Spring 2020), Special Topics: Text Analysis (Fall 2019), Advances Methods for Data Analysis (Spring 2019), Probability Theory for Computer Scientist (Fall 2018)

Data Science Initiative Fellow, Carnegie Mellon University

- Mentored groups of undergraduate students in corporate data science consulting projects.
- Penguin Random House (2019), Giant Eagle (2020)

Teaching Assistant, University of Freiburg

- Management Information Science / Introduction to Programming in R (Spring 2016), Mathematics for Natural Scientists (Fall 2015), Introduction to Programming in C (Spring 2014, 2018), Linear Algebra (Fall 2014)

Talks & Tutorials

Invited talks

- MILA x Vector Institute DEFirst group, [recording](#) (2023)
- INFORMS annual meeting, Session on Advances in Responsible AI: From Theory to Applications (2022)
- LinkedIn Responsible AI team (2022)
- AMS Sectional Meeting on Social Change in and through Mathematics and Education (2021)
- Guest lecture on Word Embeddings in Text Analysis class, CMU (2019)

Tutorials

Nil-Jana Akpinar, Alicia Sagae, Riccardo Fogliato, Mia Mayer, Michael Kearns (2024) *Responsible AI in the Generative Era: Science and Practice*. Accepted and to be held at FAccT 2024.

Selected Press

- *Long-term Dynamics of Fairness Intervention in Connection Recommender Systems*, ML@CMU blog, [link](#) (2022)
- *Algoritmos de predicción policial: para qué se usan y por qué se enseñan con los más pobres*, El País, [link](#) (2021)
- *Predictive policing is still racist – whatever data it uses*, MIT Technology Review, [link](#) (2021)

Service

- **Reviewer:** TMLR (2023), AIES (2023), ACM Transactions on Recommender Systems (2023), FAccT (2022, 2023, 2024), JMLR (2022), Neurips (2021), ICML ML4Data workshop (2021), ICML ethics review (2024)
- **Area Chair:** ICLR Responsible AI workshop (2021)
- **CMU:** Editor ML@CMU blog (2021 – 2023), Organizer Fairness, Ethics, Accountability, Transparency in ML reading group (2021), Board member CMQ+ (2019 – 2020)
- **University of Freiburg:** Three times elected member of faculty council (2015 – 2018), elected member of senate (2015), student council member (2013 – 2018), member of examination board and faculty appointment committees

Computer Skills

Programming: Python, R