Frederik Harder

Personal Data

Place and Date of Birth:	Heidelberg, Germany | 20. September 1990
Address:	Clinicumsgasse 6, 72070 Tübingen, Germany
Phone:	+49 1781675349
email:	frederikharder@gmail.com

Education

January 2018	Master of Science in Artificial Intellicence, **University of Amsterdam** Thesis: "Fields of Experts for Network Inversion and Adversarial Restoration" Supervisors: Jörn-Henrik Jacobsen & Patrick Putzky, Examiner: Max Welling Final Grade: 8.5 *cum laude*
August 2015	Bachelor of Science in Cognitive Science, **Osnabrück University** Thesis: "An Approach to Supervised Learning of Three-Valued Lukasievicz logic in Hölldobler's Core Method" Supervisors: Kai-Uwe Kühnberger & Tarek R. Besold Final Grade: 1.2 *with distinction*
Fall 2014	Exchange Semester at **Bogasici University**, Istanbul
February 2011	Certificate as Chemical-Technical Assistant at **Gymnasium Altona & Gewerbeschule 13**, Hamburg | Final grade: 1.5
July 2010	Abitur **Gymnasium Christaneum**, Hamburg | Final Grade: 1.5

Internships

Dec 2017 - Mar 2018	**Bethgelab**, University of Tübingen Topic: *Developing gradient-free adversarial attacks for stochastic CNN image classifiers*
Apr 2018 - March 2019	**Mijung Parks group** at the Empirical Inference department, Max Planck Institute for Intelligent Systems, Tübingen Topic: *Developing a differentially private version of the Method of Auxiliary Coordinates (MAC) for deep learning*

Teaching Experience

Oct 2012 - Feb 2013 & Oct 2014 - Feb 2015	Teaching assistant: Foundations of Logic
Apr - Jun 2015	Teaching assistant: Machine Learning 1

Languages

German:	Native
English:	Fluent
Dutch:	Basic Knowledge
Latin:	Advanced Proficiency Certificate ("großes Latinum")

Programming Languages

Working Knowledge:	Python (PyTorch, TensorFlow), Java, MatLab
Basic Knowledge:	Julia, C++, Prolog, Haskell

Publications

Journals & Conferences

- Harder, F., Adamczewski, K. & Park M. (2021). DP-MERF: Differentially Private Mean Embeddings with RandomFeatures for Practical Privacy-preserving Data Generation. AISTATS 2021.
- Harder, F., Bauer, M. & Park M. (2020). Interpretable and Differentially Private Predictions. AAAI 2020.
- Harder, F. & Besold, T. R. (2018). Learning Lukasiewicz logic. Cognitive Systems Research, 47, 42-67.

Workshops

- Harder, F., Bauer, M. & Park M. (2019). Interpretable and Differentially Private Predictions. Workshop on Human-Centric Machine Learning at NeurIPS 2019
- Harder, F., Köhler, J., Welling, M. & Park, M. (2019). DP-MAC: The Differentially Private Method of Auxiliary Coordinates for Deep Learning. Workshop on Privacy Preserving Machine Learning (PPML) at NeurIPS 2018
- Harder, F. & Besold T. R. (2016). An Approach to Supervised Learning of Three-Valued Lukasiewicz Logic in Hölldobler's Core Method. Fourth International Workshop on Artificial Intelligence and Cognition (AIC), 2016

Academic References

- **Tarek Richard Besold** has supervised my Bachelor's Thesis and was heavily involved in several A.I. courses I took in Osnabrück. He is currently a lecturer and assistant professor at the Research Centre for Machine Learning at City, University of London.
  mail: *tbesold@tzi.de* website: *tarekbesold.de*
- **Jörn-Henrik Jacobsen** has supervised my Master's Thesis and is currently a postdoc researcher at Vector Institute in Toronto.
  mail: *j.jacobsen@vectorinstitute.ai* website: *jhjacobsen.github.io*
- **Mijung Park** is a research group leader at the Empirical Inference department of the Max Planck Institute for Intelligent Systems in Tübingen and I am currently doing an internship under her supervision
  mail: *mijung.park@tuebingen.mpg.de* website: *privacy-preserving-machine-learning.github.io*

Code

Source code and reports for my theses and several other projects can be found on GitHub under github.com/frhrdr