FLORIAN MOHNERT

Website: florianmohnert.github.io \(\Delta \) Email: mail@florian-mohnert.de

EDUCATION

MSc. Artificial Intelligence, University of Amsterdam, running GPA: 8.5/10

09.2017 - 08.2019

- o Specialization: Machine Learning & Natural Language Processing
- Courses include: Machine Learning 1 & 2, Natural Language Processing 1, Reinforcement Learning,
 Information Theory, Unsupervised Language Learning, Statistical Machine Translation,
 Computer Vision, Information Retrieval, Multi-Agent Systems
- Thesis: "Optimal Goal Setting for Bounded Agents."
- o Supervisors: Falk Lieder (Max Planck Institute for Intelligent Systems), Herke van Hoof (ML Lab Amsterdam)

BSc. Psychology, University of Groningen, GPA: 8.3/10

09.2014 - 07.2017

- o Specialization: Cognitive Psychology & Statistics
- o Thesis: "A graphical modelling approach to study behavioral interventions on household energy usage."
- $\circ\,$ Bachelor thesis was published in the journal Frontiers in Psychology.
- o Supervisors: Prof. Casper Albers, Prof. Linda Steg

Minor in Mathematics & CS, University of Hong Kong

09.2016 - 02.2017

- 30 credit Minor partially completed during semester abroad in Hong Kong.
- o Courses: Probability theory, Linear Algebra, Multivariable Calculus, Neural Networks in AI, Data Visualization
- o Received Groningen University Fund (GUF) to cover travel expenses.

Honours Program, University of Groningen

- o Offered to top 10% of students across all Bachelor programs
- Interdisciplinary courses and projects worth 45 credits (ECTS)

EXPERIENCE

Research Intern, Max Planck Institute for Intelligent Systems, Tübingen

03.2019 - 08.2019

- Master's thesis research on Optimal Goal Setting for Bounded Agents.
- Results are about to be published as 2 papers (1st accepted and 2nd submitted) at top-tier academic conferences.
- Host: Dr. Falk Lieder (PI of the Rationality Enhancement group)

Research Intern, Max Planck Institute for Intelligent Systems, Tübingen

07.2018 - 09.2018

- o Modelling of human decision making in risky choices with metacognitive Reinforcement Learning.
- Results were publish at top-tier academic conference.
- o Host: Dr. Falk Lieder (PI of the Rationality Enhancement group)

Teaching Assitant: Natural Language Processing, University of Amsterdam

11.2018 - 02.2019

- o Course taught by Dr. Ekaterina Shutova for first year MSc. AI students.
- Teaching weekly programming and recitation sessions and supervising final projects.

Research Assistant: Interpretable Deep Learning for NLP, ILLC Amsterdam

04.2018 - 08.2018

- Investigated how hierarchical linguistic structure represented in Recurrent Neural Networks.
- Invented a novel computational Intervention that resulted in a large increase in LSTM's performance.
- Resulting paper won the best paper award at EMNLP workshop BlackboxNLP (chosen out of 76 papers).
- o Supervision: Prof. Jelle Zuidema

Internship: Data Science, Sowiso Amsterdam

07.2017 - 09.2017

- o Sowiso: E-learning platform for Mathematics and other Exact Sciences.
- Exploring stable predictors for lower performance in student population.
- Design and implementation of new visualization tool for the teacher learning analytics dashboard.

Research Assistant: Time Series Modelling, University of Groningen

05.2016 - 09.2016

- Performed a Time series analyses of Household Energy consumption data in the Netherlands.
- Applied and learned about different time-series models such as Vector Autoregression & Hidden-Markov Models.
- Presented my results in a department wide meeting.
- o Supervision: Prof. Casper Albers (Department of Statistics and Psychometrics)

• Taught English and math in a Budhist temple located in Wadduwa.

PUBLICATIONS

- 1. Florian Mohnert, Mateo Tošić and Falk Lieder (2019). **Testing Computational Models of Goal Pursuit.** In Proceedings of the Conference on Computational Cognitive Neuroscience.
- 2. Florian Mohnert, Thorsten Pachur and Falk Lieder (2019). Whats in the Adaptive Toolbox and How Do People Choose From It? Rational Models of Strategy Selection in Risky Choice. In Proceedings of the 41st Annual Meeting of the Cognitive Science Society.
- 3. Mario Giulianelli*, Jack Harding*, Florian Mohnert*, Dieuwke Hupkes and Willem Zuidema (2018). **Under the hood:** Using diagnostic classifiers to investigate and improve how language models track agreement information. In proceedings of 1st EMNLP workshop Analyzing and interpreting neural networks for NLP. **Best paper award**
- 4. Nitin Bhushan, Florian Mohnert, Lise Jans, Daniel Sloot, Casper Albers and Linda Steg, 2018. Using a Gaussian Graphical Model to Explore Relationships between Items and Variables in Environmental Psychology Research. Frontiers in Psychology.

SKILLS

Programming (> 3 years of regular use) Programming (familiar with) Deep Learning Spoken Languages Python, Matlab, R, Bash, git, LATEX Javascript (esp. D3.js), SQL, HTML/CSS PyTorch, Keras German (native), English (fluent)

^{*} joint first authorship