

Maartje ter Hoeve

Curriculum Vitae

Online version
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Research Interests

I am interested in how we can learn from humans / human cognition to improve our AI systems.

Keywords: Natural Language Processing, Natural Language Understanding, Explainability, Linguistics, Cognitive Science

Education

- Jan 2018 – **University of Amsterdam**, *PhD, Artificial Intelligence*.
present Advisors: Prof. Dr. Maarten de Rijke (University of Amsterdam), Dr. Julia Kiseleva (Microsoft Research)
- 2015 – 2017 **University of Amsterdam**, *MSc, Artificial Intelligence*, Cum Laude / With Distinction, GPA: 8.7/10.
Thesis title: Explaining Rankings (graded 9.0/10)
- 2014 – 2015 **University of Amsterdam**, *Pre-master, Artificial Intelligence*, GPA: 9.0/10.
- Sep 2013 – **University of Edinburgh**, *Erasmus Exchange*, GPA: 9.0/10.
Dec 2013 Focussed on Informatics & Linguistics
- 2013 – 2014 **University of Amsterdam**, *Honours Programme*, GPA: 9.2/10.
- 2011 – 2014 **University of Amsterdam**, *BA Linguistics*, Cum Laude / With Distinction, GPA: 8.9/10.
Thesis title: Modelling Late Bilingual Speakers with Neural Networks (graded 8.5/10)

Professional Experience

- April 2022 – **Apple MLR**, *Research Intern*.
present Advisor: Natalie Schluter.
- Jun 2021 – **Facebook AI Research**, *Research Intern*.
Oct 2021 Research Direction: NLP & Cognitive Science, Advisor: Emmanuel Dupoux
- May 2019 – **Microsoft Research AI**, *Research Intern*.
- August 2019 Topic: Question Answering, Advisors: Robert Sim & Ryen White
- Jan 2017 – **Blendle**, *Research Intern*.
Sep 2017 Topic: Explaining Rankings, Advisors: Prof. Dr. Maarten de Rijke & Dr. Anne Schuth
- May 2016 – **ASML**, *Research Intern*.
Jun 2016 Topic: Natural Language Understanding, Advisor: Dr. Ivan Titov
- 2015 – 2016 **University of Amsterdam**, *Tutor*.
Being a mentor for 1st year AI students and guiding them through their first year at university

- Mar 2014 – **University of Amsterdam**, *Research Assistant*.
Jul 2014 Task: Assisting at the VALID project; constructing a database for children’s language data, Advisor: Dr. Jan de Jong
- 2012 – 2013 **University of Amsterdam**, *Research Assistant*.
Task: Assisting at the FESLI-project; digitalizing language data, Advisors: Prof. Dr. Fred Weerman & Dr. Jan de Jong
- Jan 2012 – **University of Amsterdam**, *Research Assistant*.
Jul 2012 Task: Responsible for the phonetic analysis of recorded language data, Advisor: Dr. Titia Benders

Selected publications and preprints

Full list: <https://scholar.google.nl/citations?user=U4ATzGYAAAAJ&hl=en>

Maartje ter Hoeve, Julia Kiseleva, Maarten de Rijke. *What Makes a Good and Useful Summary? Incorporating Users in Automatic Summarization Research*. NAACL 2022.

Maartje ter Hoeve, Julia Kiseleva, Maarten de Rijke. *Summarization with Graphical Elements*. Under submission, 2022.

Ana Lucic, **Maartje ter Hoeve**, Gabriele Tolomei, Maarten de Rijke, Fabrizio Silvestri. *CF-GNNE explainer: Counterfactual Explanations for Graph Neural Networks*. AISTATS 2022.

Maartje ter Hoeve, Evgeny Kharitonov, Dieuwke Hupkes, Emmanuel Dupoux. *Towards Interactive Language Modeling*. ACL 2022, SPA-NLP.

Julia Kiseleva, Ziming Li, Mohammad Aliannejadi, Shrestha Mohanty, **Maartje ter Hoeve**, Mikhail Burtsev, Alexey Skrynnik, Artem Zhohus, Aleksandr Panov, Kavya Srinet, Arthur Szlam, Yuxuan Sun, Katja Hofmann, Michel Galley, Ahmed Awadallah. *NeurIPS 2021 Competition IGLU: Interactive Grounded Language Understanding in a Collaborative Environment*. NeurIPS 2021, Competition Track.

Maartje ter Hoeve, Robert Sim, Elnaz Nouri, Adam Fourney, Maarten de Rijke, Ryan White. *Conversations with Documents: An Exploration of Document-Centered Assistance*. CHIIR 2020.

David Stap, Maurits Bleeker, Sarah Ibrahim, **Maartje ter Hoeve**. *Conditional Image Generation and Manipulation for User-Specified Content*. CVPR 2020, AICW.

Joris Baan, **Maartje ter Hoeve**, Marlies van der Wees, Anne Schuth, Maarten de Rijke. *Do Transformer Attention Heads Provide Transparency in Abstractive Summarization?* SIGIR 2019, FACTS-IR.

Maartje ter Hoeve, Mathieu Heruer, Daan Odijk, Anne Schuth, Martijn Spitters, Ron Mulder, Nick van der Wildt and Maarten de Rijke. *Do News Consumers Want Explanations for Personalized News Rankings?*. RecSys 2017, FATREC Workshop on Responsible Recommendation.

Activities

- 2022 **Organizing second edition of IGLU Challenge.**
IGLU: Interactive Grounded Language Understanding in a Collaborative Environment.
- 2021 **Organizing IGLU Challenge at NeurIPS.**
IGLU: Interactive Grounded Language Understanding in a Collaborative Environment.
- 2021 **Contributed to BIG Bench Challenge.**
Contributed tasks: Metaphor understanding, Reasoning in a fantasy world, Relational reasoning.
- 2021 **Guest in Data Skeptic Podcast.**
- 2020 **Participant Microsoft Research AI Breakthroughs workshop.**
- 2020 – 2021 **Organiser of *Search Engines Amsterdam* Meetup.**
- 2019 – **Organiser and mentor at Inclusive AI, University of Amsterdam.**
present IAI is an inclusive space for members to get non-academic help from senior peers in the field and to connect with each other.
- 2018 **Participant Data Science Summer School, Paris.**
- 2017 **Participant Google NLP Summit, Zürich.**
- 2015 – 2019 **Board member (Project Officer), Extensus Alumni Network.**
- 2015 – 2017 **ASML Scholar.**
Awarded with the ASML Technology Scholarship
- 2014 – 2015 **Board member (President), Extensus Honours Association.**

Teaching

Master Thesis Supervision

- 2022 **Rahel Habacker, MSc Artificial Intelligence, University of Amsterdam.**
Topic: Language Modeling. Together with Meta AI.
- 2021 **Michael Neely, MSc Artificial Intelligence, University of Amsterdam.**
Topic: Question Driven Automatic Summarization
- 2021 **Justine Winkler, MSc Artificial Intelligence, Radboud University Nijmegen.**
Topic: Modeling Background Knowledge for Automatic Summarization
- 2020 **Henning Bartsch, MSc Artificial Intelligence, University of Amsterdam.**
Topic: Improving User Representations for News Recommendation
- 2019 **Joris Baan, MSc Artificial Intelligence, University of Amsterdam.**
Topic: Transparency and Interpretability in Abstractive Summarization
- 2019 **David Stap, MSc Artificial Intelligence, University of Amsterdam.**
Topic: Conditional Image Generation and Manipulation
- 2018 **David Ruhe, MSc Data Science, University of Amsterdam.**
Topic: Adversarial Examples for Capsule Networks
- 2018 **Dennis Craandijk, MSc Data Science, University of Amsterdam.**
Topic: Automatic Unseen Event Extraction from Text
- 2018 **Mink Rohmer, MSc Data Science, University of Amsterdam.**
Topic: Classifying the Severity of Written Complaints

Courses (TA and Lectures)

- 2021 **Fairness, Accountability and Transparency**, *MSc Artificial Intelligence*, University of Amsterdam.
- 2019 **Information Retrieval**, *MSc Data Science*, University of Amsterdam.
- 2018 **Information Retrieval 2**, *MSc Artificial Intelligence*, University of Amsterdam.
- 2016 **Natural Language Processing**, *BSc Artificial Intelligence*, University of Amsterdam.
- 2015 **Logic Programming and Search**, *BSc Artificial Intelligence*, University of Amsterdam.
- 2015 **Introduction to AI**, *BSc Artificial Intelligence*, University of Amsterdam.

Reviewing

- 2022 ACL ARR
- 2021 CoNLL, TOIS
- 2020 ACL, CIKM, EACL, TOIS
- 2019 NAACL, ICML, TOIS
- 2018 CIKM, NeurIPS
- 2017 WSDM, WWW

Technical skills

Python, Java, MATLAB
PyTorch, Tensorflow
Large-Scale / Distributed Machine Learning

Languages

Native: Dutch
Full professional proficiency: English
Limited working proficiency: German, French