

Tobias Schimanski

Doctoral Researcher, University of Zurich
Scientific Assistant, ETH Zurich

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Languages: German, English, French

Last Update: 04/2026

Research Statement

I work on the intersection of Natural Language Processing and Sustainable Finance. I develop Large Language Model methods that are used to analyze firms' climate transition, physical climate risks and climate adaptation – as well as their financial implications.

Education

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|-----------------|--|
| 02/2023-date | PhD Student, Department of Finance
University of Zurich <ul style="list-style-type: none">- Focus on the NLP for Sustainable Finance / ClimateNLP, supervised by Prof. Markus Leippold |
| 10/2020-12/2022 | Master of Science, International Information Systems
Friedrich-Alexander-University Nuremberg-Erlangen (FAU) <ul style="list-style-type: none">- Master Thesis: Deep Learning and ESG: Analysing the link between a firms' ESG communication in annual reports and its ESG ratings- Final grade: 1.22 (top 1%) |
| 10/2016-09/2020 | Bachelor of Science, Industrial Engineering
Friedrich-Alexander-University Nuremberg-Erlangen (FAU) <ul style="list-style-type: none">- Bachelor Thesis: Digitalization of enterprises: advantageousness and measurement from an investor perspective- Final grade: 1.4 (top 2%) |

Research Experience

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|-----------------|---|
| 02/2025-date | ETH Zurich, Law, Economics and Data Science Group
Scientific Assistant, with Prof. Elliott Ash |
| 06/2023-12/2025 | University of Oxford, NLP for Sustainable Finance Programme
Affiliated Researcher, with Dr. Julia Bingler |
| 02/2022-01/2023 | FAU Nuremberg-Erlangen, Chair for Data Analytics
Research Assistant, with Prof. Matthias Kraus |

Publications

Natural Language Processing (“*” marks shared first author contribution)

Jingwei Ni*, **Tobias Schimanski***, Meihong Lin, Mrinmaya Sachan, Elliott Ash, and Markus Leippold (2025). [DIRAS: Efficient LLM Annotation of Document Relevance for Retrieval Augmented Generation](#). In: main conference of the **Nations of the Americas Chapter of the Association for Computational Linguistics (NAACL)**.

Tobias Schimanski*, Jingwei Ni*, Mathias Kraus, Elliott Ash, Markus Leippold (2024). [Towards Faithful and Robust LLM Specialists for Evidence-Based Question-Answering](#). In: main conference of **Association for Computational Linguistics (ACL)**.

Tobias Schimanski, Jingwei Ni, Roberto Spacey, Nicola Ranger, Markus Leippold (2024). [ClimRetrieve: A Benchmarking Dataset for Information Retrieval from Corporate Climate Disclosures](#). In: main conference of **Empirical Methods in Natural Language Processing (EMNLP)**.

Tobias Schimanski, Chiara Colesanti Senni, Glen Gostlow, Jingwei Ni, Tingyu Yu, Markus Leippold (2024). [Exploring Nature: Datasets and Models for Analyzing Nature-Related Disclosures](#). In: Workshop on AI in Finance for Social Impact of **Association for Advancement of Artificial Intelligence (AAAI)**.

Tobias Schimanski, Julia Bingler, Camilla Hyslop, Mathias Kraus, Markus Leippold (2023). [ClimateBERT-NetZero: Detecting and Assessing Net Zero and Reduction Targets](#). In: main conference of **Empirical Methods in Natural Language Processing (EMNLP)**.

Sustainable Finance

Chiara Colesanti Senni, **Tobias Schimanski**, Julia Bingler, Jingwei Ni, Markus Leippold (2025). [Using AI to assess corporate climate transition disclosures](#). **Environmental Research**.

Tobias Schimanski, Andrin Reding, Nico Reding, Julia Bingler, Mathias Kraus, Markus Leippold (2024). [Bridging the Gap in ESG Measurement: Using NLP to Quantify Environmental, Social, and Governance Communication](#). **Finance Research Letters**.

Working Papers

Natural Language Processing

Tobias Schimanski, Imene Kolli, Jingwei Ni, Yu Fan, Ario Saeid Vaghefi, Elliott Ash, Markus Leippold (2026). [pdfQA: Diverse, Challenging, and Realistic Question Answering over PDFs](#). *Under Review at Empirical Methods in Natural Language Processing (EMNLP)*.

Sustainable Finance

Tobias Schimanski, Glen Gostlow, Malte Toetzke, Markus Leippold (2026). [What Firms Actually Lose \(and Gain\) from Extreme Weather Event Impacts](#).

Sebastian Gehricke, Markus Leippold, **Tobias Schimanski**, Cristhian Delgado Fajardo (2025). [To Disclose, or Not to Disclose: Evaluating the Effectiveness of Mandatory Climate-Related Disclosure](#).

Teaching

2026:

- Project Coordinator/Teaching Assistant in the “ETH AI Center Projects in Machine Learning Research” course (**ETH Zurich, Master’s Education**)
- Lecturer in the “Fundamentals of AI” course (**University of Zurich, Executive Education**)
- Lecturer in the “ETH AI Center: AI in Finance” course (**ETH Zurich, Executive Education**)
- Lecturer in the “Masterclass on AI in Sustainable Finance” (**University of Oxford, Executive Education**)

2025:

- Lecturer in the “AI-driven Innovations in Finance” course (**University of Zurich, Executive Education**)
- Lecturer/Teaching Assistant in “Mathematical Finance” course (**University of Zurich, PhD Education**)
- Lecturer in the “Finance for future” course (**University of Zurich, Summer School**)
- Lecturer/Teaching Assistant in the “Climate and Energy Finance” course (**University of Otago, Master’s Education**)

2024:

- Lecturer in the “FinTech & Sustainability” course (**University of Zurich, Executive Education**)
- Lecturer in the “NLP for finance” research seminar (**University of Zurich, Master’s Education**)
- Guest Lecturer in the “Strategic Communication of Net Zero: Company Reports, Sustainability Claims and Greenwashing” research seminar (**University of Zurich, Master’s Education**)
- Lecturer for “NLP for Policy Analysis” course (**Climate Change AI, Summer School**)

2023:

- Lecturer in the “FinTech & Sustainability” course (**University of Zurich, Executive Education**)

2022:

- Teaching Assistant in the “Natural Language Processing” course (**FAU Nuremberg-Erlangen, Master’s Education**)
- Teaching Assistant/Exercise Lecturer in “Data Management and Analysis” course (**FAU Nuremberg-Erlangen, Bachelor’s Education**)

2021:

- Teaching Assistant/Exercise Lecturer in “Data Management and Analysis” course (**FAU Nuremberg-Erlangen, Bachelor’s Education**)

- Teaching Assistant/Exercise Lecturer in “Statistics and Data Science” course (**FAU Nuremberg-Erlangen, Bachelor’s Education**)

2020:

- Teaching Assistant/Exercise Lecturer in “Statistics and Data Science” course (**FAU Nuremberg-Erlangen, Bachelor’s Education**)

Invited Talks

2025:

- Speaker at the “**TUM Think Tank Seminar Series**” (Munich, Germany), organized by the Transformation Finance Lab at the TUM Think Tank
- Speaker at the “**Transition Finance Risks or Opportunities Event**” (Zurich, Switzerland), organized by the Depart of Finance of the University of Zurich
- Keynote speaker at the “**Executive Education Finance Introduction Event**” (Zurich, Switzerland), organized by the University of Zurich Executive Education
- Speaker at the “**Sub-Committee on Bridging Data Gaps of the Joint Committee on Climate Change**” (Kuala Lumpur, Malaysia/hybrid), organized by the Bank Negara Malaysia
- Panellist at the “**2025 Interdisciplinary Conference on Financial Communication Research**” (Vienna, Austria), organised by the Vienna University of Economics and Business
- Speaker at the “**Summit for action on AI**” (Paris, France), organised by the Ministry of Environment of France

2024:

- Speaker at the “**NLP Expert Group Meeting**” (Zurich, Switzerland), organised by SwissNLP and the Data Innovation Alliance
- Speaker at the “**BIS Innovation Hub meeting on: Use of Technology to Evaluate Transition Plans**” (Madrid, Spain/hybrid), organised by Banco de España, and Bank of International Settlements (BIS)
- Speaker at the “**NGFS Subgroup for Technology meeting**” (London, UK/hybrid), organized by the Network for Greening the Financial System
- Keynote speaker at the “**BARC ESG Reporting 2024**” conference (Frankfurt, Germany), organised by the BARC GmbH
- Speaker at the “**CBRT-IFC Workshop on: Addressing Climate Change Data Needs: The Global Debate and Central Banks’ Contribution**” (Izmir, Turkey), organised by the Central Bank of Türkiye, Irving Fisher Committee on Central Bank Statistics, and BIS

2023:

- Speaker at the “**Red Flag Greenwashing Indicators – Understanding the Algorithms Behind It**” workshop (Kuala Lumpur, Malaysia), organised by Bursa Malaysia
- Speaker at the “**Employing Natural Language Processing for Sustainable Finance**” meeting (Singapore, Singapore), organised by the Center for Sustainable Finance and Private Wealth Singapore
- Speaker at the “**Oxford Symposium on Natural Language Processing for Sustainable Finance**” (Oxford, UK), organized by the University of Oxford

Reviewing Activities

Natural Language Processing: Association of Computational Linguistics (2023, 2024, 2025, 2026), International Conference on Machine Learning (2025), International Conference on Learning Representations (2025), Conference on Neural Information Processing Systems (2025), ACM Transactions on Knowledge Discovery from Data (2025)

Sustainable Finance: Journal of Banking and Finance, Nature Communications, Nature Climate Action, Finance Research Letters, Environmental Data Science, Scientific Reports, Climate Policy

Workshops & Additional Work

2026:

- **Main organizer** of the [“ClimateNLP” workshop](#) at the **Empirical Methods in Natural Language Processing (EMNLP)** conference in Budapest, 24th – 20th of October

2025:

- **Over 1 million downloads** of [ESG-BERT models](#) since 2023
- **Co-author of successful Innosuisse Grant** (Project-Nr.: 122.540 IP-ICT) for [“ETH RegCheck”](#), obtaining 363,948.05 CHF
- **Tutorial** at the [Climate Change AI Workshop](#) at Conference on **Neural Information Processing Systems**, 2nd-7th of December
- **Main Organizer** of the [“ClimateNLP session”](#) at the **AI+Environment Summit** by ETH AI Center, 1st of October
- **Co-organizer** of the [“ClimateNLP” workshop](#) at the **Association for Computational Linguistics (ACL)** conference in Vienna, 27th of June – 1st of August
- **Co-organizer** of the [“European Universities Competition on Artificial Intelligence to Promote Sustainable Development and Address Climate Change”](#)

2024:

- **Fellow at the MSCI Sustainability Institute**, shared master thesis supervision
- **Co-organizer** of [the “ClimateNLP” workshop](#) at the **Association for Computational Linguistics (ACL)** conference in Bangkok, 11th-16th of August
- **Co-organizer and panel discussant** in the workshop [“Accelerating Climate Change Action Through Machine Learning”](#) at the **Applied Machine Learning Days (AMLDD)** in Lausanne, 23rd -26th of March

2023:

- **Contributor** to the open-source tool platform chatclimate.ai for the [ChatClimate](#), [ChatReport](#) and [AskNature](#) tools