University of Zagreb martin.tutek@gmail.com

MARTIN TUTEK

https://mttk.github.io/ Google Scholar

RESEARCH INTERESTS

Natural Language Processing, Faithful Explainability, Safe and Reliable AI

EMPLOYMENT

EMPLOYMENT	
Postdoctoral Researcher, University of Zagreb	Feb 2025 – Present
Postdoctoral Researcher, Technion	Feb 2024 – Feb 2025
Postdoctoral Researcher, UKP Lab, Technische Universität Darmstadt	Sep 2022 – Dec 2023
Research Consultant, European Commission, Joint Research Centre	Sep 2014 – Sep 2015
EDUCATION	
Ph.D. In Computer Science, University of Zagreb	2016 – 2022
M.Sc. In Computer Science, University of Zagreb	2012 – 2014
B.Sc. In Computer Science, University of Zagreb	2009 – 2012

Publications

SELECTED PUBLICATIONS

- [*] **Tutek, M.**, Hashemi Chaleshtori, F, Marasović, A, Belinkov, Y. (2025). <u>Measuring Faithfulness of Natural Language Explanations by Unlearning Reasoning Steps</u>. Under review.
- [*] Mueller*, A., Geiger*, A., Wiegreffe*, S., ..., **Tutek, M**., Zur, A, Bau, D., Belinkov, Y. (2025). MIB: <u>A Mechanistic Interpretability Benchmark</u>. ICML 2025.
- [*] **Tutek, M.** & Šnajder, J. (2020). <u>Staying True to Your Word:(How) Can Attention Become</u> <u>Explanation?</u>. In Proceedings of the 5th Workshop on Representation Learning for NLP (pp. 131-142).

PREPRINTS OR UNDER REVIEW

- [1] Bibhuti, A., Vashishtha, S., Naik, A., **Tutek, M.**, Aditya, S. (2025). PragWorld: A Benchmark Evaluating LLMs' local world model under Perturbations and Conversational Dynamics. Under review.
- [2] Dukić, D., Barić, A., Čuljak, M., Jukić, J., **Tutek, M.** (2025). Characterizing Linguistic Shifts in Croatian News via Diachronic Word Embeddings. Under review.
- [3] **Tutek, M.**, Hashemi Chaleshtori, F, Marasović, A, Belinkov, Y. (2025). <u>Measuring Faithfulness of Natural Language Explanations by Unlearning Reasoning Steps</u>. Under review.
- [4] Soker, Y., **Tutek, M.**, & Belinkov, Y. (2025). Predicting Success of Model Editing Through Intrinsic Features. Under review.

PEER-REVIEWED PUBLICATIONS

[5] Mueller*, A., Geiger*, A., Wiegreffe*, S., ..., **Tutek, M**., Zur, A, Bau, D., Belinkov, Y. (2025). <u>MIB: A Mechanistic Interpretability Benchmark</u>. ICML 2025.

- [6] Ashuach, T., **Tutek, M.**, & Belinkov, Y. (2024). <u>REVS: Unlearning Sensitive Information in Language Models via Rank Editing in the Vocabulary Space</u>. Findings of ACL 2025.
- [7] Puerto, H., **Tutek, M.**, Aditya, S., Zhu, X., & Gurevych, I. (2024). <u>Code Prompting Elicits</u> <u>Conditional Reasoning Abilities in Text+ Code LLMs</u>. EMNLP 2024.
- [8] Jelenić, F., Jukić, J., **Tutek, M.**, Puljiz, M., & Šnajder, J. (2024). <u>Out-of-Distribution Detection by</u> Leveraging Between-Layer Transformation Smoothness. ICLR 2024.
- [9] Sachdeva, R., **Tutek, M.**, & Gurevych, I. (2024). <u>CATFOOD: Counterfactual Augmented Training for Improving Out-of-Domain Performance and Calibration</u>. EACL 2024.
- [10] Jukić, J.*, **Tutek**, **M.***, & Šnajder, J. (2023). <u>Easy to Decide, Hard to Agree: Reducing Disagreements Between Saliency Methods</u>. Findings of ACL 2023 ***Equal contributions**.
- [11] **Tutek, M**., & Snajder, J. (2022). <u>Toward Practical Usage of the Attention Mechanism as a Tool for Interpretability</u>. IEEE Access.
- [12] Obadić, L., **Tutek, M.**, & Šnajder, J. (2022). <u>NLPOP: a Dataset for Popularity Prediction of Promoted NLP Research on Twitter</u>. In Proceedings of the 12th Workshop on Computational Approaches to Subjectivity, Sentiment & Social Media Analysis (pp. 286-292).
- [13] **Tutek, M.** & Šnajder, J. (2020). <u>Staying True to Your Word:(How) Can Attention Become</u> <u>Explanation?</u>. In Proceedings of the 5th Workshop on Representation Learning for NLP (pp. 131-142).
- [14] **Tutek, M.** & Šnajder, J. (2018). <u>Iterative Recursive Attention Model for Interpretable Sequence Classification</u>. In Proceedings of the 2018 EMNLP Workshop: Analyzing and interpreting neural networks for NLP.
- [15] di Buono, M. P., Šnajder, J., Dalbelo Bašić, B., Glavaš, G., **Tutek, M.**, & Milic-Frayling, N. (2017). <u>Predicting News Values from Headline Text and Emotions</u>. In 2017 EMNLP Workshop on Natural Language Processing Meets Journalism (pp. 1-6).
- [16] Rotim, L., **Tutek, M.**, & Šnajder, J. (2017, August). <u>Takelab at semeval-2017 task 5: Linear aggregation of word embeddings for fine-grained sentiment analysis of financial news</u>. In Proceedings of the 11th International Workshop on Semantic Evaluation (SemEval-2017) (pp. 866-871).
- [17] di Buono, M. P., **Tutek**, **M.**, Šnajder, J., Glavaš, G., Bašic, B. D., & Milic-Frayling, N. (2017). <u>Two</u> Layers of Annotation for Representing Event Mentions in News Stories. LAW XI 2017, 82.
- [18] **Tutek, M.**, Glavas, G., Šnajder, J., Milić-Frayling, N., & Dalbelo Basic, B. (2016, October). <u>Detecting and Ranking Conceptual Links between Texts Using a Knowledge Base</u>. In Proceedings of the 25th ACM International on Conference on Information and Knowledge Management (pp. 2077-2080).
- [19] **Tutek, M.**, Sekulić, I., Gombar, P., Paljak, I., Čulinović, F., Boltužić, F., Karan, M., Alagić, D. and Šnajder, J. (2016). <u>Takelab at semeval-2016 task 6: stance classification in tweets using a genetic algorithm based ensemble</u>. In Proceedings of the 10th International Workshop on Semantic Evaluation (SemEval-2016) (pp. 464-468).

Invited Talks

Using, Improving and Calibrating (Large) Language Models	
- CroAl Meetup	Mar 2024
ChatGPT: What can large pre-trained language models say about the future?	
- CroAl Meetup	May 2023
- IEEE Croatia, University of Zagreb	Dec 2022
On interpretability: attention, saliency and beyond	
- Technion	Jun 2022

TEACHING

TEROMING	
209719: Introduction to Artificial Intelligence, University of Zagreb	Summer 2025
20-00-0947: Deep Learning for Natural Language Processing, TU Darmstadt	Summer 2023
252377: Deep Learning 1, University of Zagreb	Summer 2018-2021
222925: Text Analysis and Retrieval, University of Zagreb	Autumn 2018-2021
209719: Introduction to Artificial Intelligence, University of Zagreb	Summer 2016-2022
MENTORING	
Technion MA Researchers (with Yonatan Belinkov)	
- Tomer Ashuach (now PhD at Technion)	Feb 2024 – present
- Yanay Soker	Feb 2024 – Sep 2024
Darmstadt PhD Students (with Iryna Gurevych)	
- Haritz Puerto	Dec 2022 – Dec 2023
- Rachneet Sachdeva	Sep 2022 – Oct 2023
Darmstadt MA Researchers (with Iryna Gurevych)	
- Dorian Arnouts	Feb 2023 – Aug 2023
University of Zagreb PhD students (with Jan Šnajder)	
- Josip Jukić	Aug 2021 – present
Consular	

SERVICE

Organizing experience:

- BlackBoxNLP 2025 Shared task: benchmarking new techniques for localizing circuits and causal latent variables in language models (https://blackboxnlp.github.io/2025/task/)

Area Chair: Interpretability and Analysis of Models for NLP

- COLING 2024
- ACL Rolling Review

Dec 2023-current

- EMNLP 2023
- ACL 2023

Conference Reviewer

- ICLR 2025
- COLM 2024, 2025
- NeurIPS 2024, 2025
- ARR Nov 2021 Oct 2023 (outstanding reviewer Oct 2023)
- EACL 2023
- EMNLP *2018* 2022
- ACL 2018 2022

Journal Reviewer

- Automatika 2020, 2021
- Artificial Intelligence 2021, 2022

Workshop Reviewer

- Mechanistic Interpretability Workshop @ICML 2024
- BlackboxNLP @EMNLP 2018

Summer School Lecturer

Intl' Summer School of Data Science in Split, practical sessions. 2016, 2017

OPEN-SOURCE SOFTWARE AND DATASETS

 Podium: A framework agnostic python NLP library for data loading and preprocessing https://github.com/TakeLab/podium

- RNN-classifier: A minimalistic RNN classifier sample

https://github.com/mttk/rnn-classifier

- pytorch

Contributor

https://github.com/pytorch/pytorch

pytorch-text

Contributor, maintainer

https://github.com/pytorch/text

REFERENCES

- Yonatan Belinkov, belinkov@technion.ac.il
- Jan Šnajder, jan.snajder@fer.hr
- Ana Marasović, ana.marasovic@utah.edu