Ahmad Dawar Hakimi

LMU Munich, 80538 Munich, Germany

+49 15202862019 | adhakimi@cis.lmu.de | https://www.linkedin.com/in/ahmad-dawar-hakimi/

WORK EXPERIENCE

2024 - current

ELLIS PhD Student & Research Assistant, LMU Munich <> University of Copenhagen & Junior Member at Munich Center for Machine Learning, Germany

Research Area: Interpretability, Natural Language Processing

Supervisor: Hinrich Schütze, Isabelle Augenstein

- Identifying the storage of Factual Knowledge within Large Language Models through Mechanistic Interpretability
- Conducted knowledge probing throughout the training process of large language models to assess knowledge retention

2023 - 2023

ML Engineer \ Guest Researcher, InfAI - Institute for Applied Informatics, Germany

Research Project KIRESys - "AI-based Reference Design Processing for the Automated Development of Embedded Systems"

- Conducted information extraction of electrical engineering PDFs and keyword generation for electronic components, improving data accessibility, facilitating knowledge discovery, and enhancing search capabilities
- Generated comprehensive summaries for technical documents

2019 - 2023

Research Assistant, NLP Department at Leipzig University, Germany

Research Project FAME - "A Framework for Argument Mining and Evaluation"

- Leveraged syntactical information to improve the expressiveness of sentence embeddings, especially for sentences with similar structure
- Identified contradictory items in a collection of arguments using external knowledge mined from Dung's argumentation framework
- Developed a model (published at EMNLP 2021) for the task of Same Stance Classification - detecting if a pair of arguments have the same stance toward a topic
- Introduced the novel task of Same Sentiment Classification (published at EMNLP 2021)

2018 - 2019

Student Research Assistant, NLP Department at Leipzig University, Germany

Research Project ILCM - "Interactive Leipzig Corpus Miner"

- Implemented an R6 Cooccurrence Class, a customized logging function, updated and fixed the calculation of the context volatility, optimized and extended the Text Processing Pipeline, and added a Black- and Whitelist for the tokenization step in R
- Designed test cases and technical documentation

2017 - 2018

Student Assistant, NLP Department at Leipzig University, Germany

- Organized the lab classes for the bachelor's course in "Algorithm and Data Structures"

EDUCATION

2024 - current

Ludwig-Maximilians University Munich PhD in Computer Science

- Interpretability and Knowledge Representation of Large Language Models

2019 - 2023

Leipzig University Master of Science, Computer Science, Final Grade: 1.2

- Master thesis: "Citance-Contextualized Summarization of Scientific Papers"
- Developed a high-quality, large-scale dataset, "Context-SciSumm" for citance-contextualized summarization
- Created and assessed multiple relevant citance context extraction strategies

- Generated contextualized summaries for scientific documents with Large Language Models such as LLaMa, Alpaca, Vicuna, Falcon, and GPT and evaluated their quality through a human and automatic evaluation (published at EMNLP 2023)

2020 - 2020	**Deutschlandstipendium** Scholarship
	- Funded by SpinLab and the Federal Ministry of Education and Research
	- Awarded for outstanding academic performance
2016 - 2019	**Leipzig University** Bachelor of Science, Computer Science, <u>Final Grade: 2.1</u>
	- <u>Bachelor thesis</u>: "Using Syntactic Information for Sentence Embeddings"
	- Leveraged syntactical information to improve the expressiveness of sentence embeddings
	- designed two different algorithms and evaluated them on NLP Downstream-Tasks
2008 - 2016	**Friedrich-Schiller-Gymnasium** General Qualification for University Entrance

PUBLICATIONS

2023	**Hakimi, A. D.**, Syed, S., Al-Khatib, K. & Potthast, M. (2023, November). *Citance-Contextualized Summarization of Scientific Papers*. In Findings of the Association for Computational Linguistics: EMNLP 2023.
2022	Meinecke, C., **Hakimi, A. D**., & Jänicke, S. (2022). *Explorative Visual Analysis of Rap Music*. *Information*, *13*(1), 10.
2021	Körner, E., Wiedemann, G., **Hakimi, A. D.**, Heyer, G., & Potthast, M. (2021, November). *On Classifying whether Two Texts are on the Same Side of an Argument*. In Proceedings of the 2021 Conference on Empirical Methods in Natural Language Processing (pp. 10130-10138).
2021	Körner, E., **Hakimi, A. D.**, Heyer, G., & Potthast, M. (2021, November). *Casting the Same Sentiment Classification Problem*. In Findings of the Association for Computational Linguistics: EMNLP 2021 (pp. 584-590).
2020	Baumann, R., Wiedemann, G., Heinrich, M., **Hakimi, A. D.**, & Heyer, G. (2020). *The Road Map to FAME: A Framework for Mining and Formal Evaluation of Arguments*. Datenbank-Spektrum, 20(2), 107-113.

SKILLS & INTERESTS

Languages	German (Native / Bilingual Proficiency)
	Dari (Native / Bilingual Proficiency)
	English (Full Professional Proficiency)
	Latin (Limited Working Proficiency - I hold the German "Großes Latinum" degree, a certificate for advanced skills in Latin)
	French (Elementary Proficiency)
	Russian (Elementary Proficiency)
Technology	Python, PyTorch, Tensorflow, Huggingface, Numpy, Pandas, R, Docker
Interests	NLP, Large Language Models, Interpretability, Knowledge Representation, Machine Learning, Summarization, Argumentation, Text Classification, Object Detection
Activities	Running, Bodyweight Fitness, Road Cycling, Table Tennis, Basketball