Ahmad Dawar Hakimi

Leipzig University, 04103 Leipzig, Germany
+49 15202862019 | ah.dawar.hakimi@gmail.com | https://www.linkedin.com/in/ahmad-dawar-hakimi/

WORK EXPERIENCE

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"

2016 - 2016 **Simultaneous Translator, MZI Fremdsprachdienst, Germany**

- Translated between Dari and German for integrating refugees across multiple government and medical institutions

EDUCATION

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, Final Grade: 2.1

- Bachelor thesis: "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.

PROGRAMMING EXPERIENCE

2020 **Blockchain Supply Chain Management System, Project for BMW**
Tech Stack: Python, Typescript, Angular, Hyperledger Fabric

- Abstracted the Supply Chain of BMW on a national and international level
- Developed a modular Blockchain Supply Chain Management System for BMW Storage Containers as part of a Blockchain Hackathon from Leipzig University

2020 **Fashion Object Detection and Segmentation, Project for Webdata Solutions (Vistex)**
Tech Stack: Python, Detectron2

- Conducted comprehensive analysis of Object Detection Models, e.g., YOLO, RCNN
- Trained a fashion classifier using Mask RCNN Model on the Deepfashion2 dataset, proficiently extracting pixel masks of classified clothing items

2019 **Semantic Scholar Graph, Information and Content Management Project at University**
Tech Stack: Python, Javascript, React, Neo4J, Docker

- Tackled the problem of multi-level backtracking for literature search
- Built an interactive Web app for exploring the Semantic Scholar Dataset

2018 **Police Press Search Engine, Information Retrieval Project at University**
Tech Stack: Javascript, Python, Elasticsearch, Vue.js, Docker

- Crawled and compiled a corpus of German police press reports
- Built a search engine for exploring this corpus
- Contributed towards the paper: “A Search Engine for Police Press Releases to Double-Check the News” (published in the journal “Advances in Information Retrieval”)

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, SQL, PyTorch, Tensorflow, Huggingface, Numpy, Pandas, R, Docker, Detectron2
Interests	NLP, Large Language Models, Machine Learning, Summarization, Machine Translation, Argumentation, Text Classification, Object Detection, Information Retrieval
Activities	Running, Bodyweight Fitness, Road Cycling, Table Tennis, Basketball