ZAHRA ABBASIANTAEB

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RESEARCH INTERESTS

Information Retrieval, Conversational Search, Personalized Search, Large Language Models, Evaluation of Conversational Search Systems, Natural Language Processing, and Question Answering Systems.

EDUCATION

Ph.D. Candidate of Informatics Institute - Information Retrieval Lab (IRLab)　　2023 - Present
University of Amsterdam (UVA), Amsterdam, The Netherlands.
Thesis: Conversational Search and Recommendation.
Supervisors: Dr. Mohammad Alian Nejadi and Prof. Dr. Evangelos Kanoulas

M.Sc. of Artificial Intelligence and Robotics, GPA: 18.65/20 (3.73/4)　　2018 - 2020
Amirkabir University of Technology (Tehran Polytechnics), Tehran, Iran.
Thesis: Text-based Question Answering with Deep Attentional Neural Networks.
Supervisors: Dr. Saeedeh Momtazi

B.Sc. of Software Engineering, GPA: 18.39/20 (3.68/4)　　2014 - 2018
Amirkabir University of Technology (Tehran Polytechnics), Tehran, Iran.

RESEARCH EXPERIENCE

Researcher, Leiden Institute of Advanced Computer Science (LIACS)　　2022
Leiden University, Leiden, The Netherlands.
Project: Linking patents to scientific publications through in-text reference mining.
Supervisors: Dr. Suzan Verberne and Dr. Jian Wang

BOOKS

Momtazi, Saeedeh, and **Zahra Abbasiantaeb** Question Answering over Text and Knowledge Base. Springer Nature, 2022. [pdf]

SELECTED PUBLICATIONS (GOOGLE SCHOLAR)

Abbasiantaeb, Zahra, Chuan Meng, Leif Azzopardi, and Mohammad Aliannejadi. "Can We Use Large Language Models to Fill Relevance Judgment Holes?" *arXiv preprint arXiv:2405.05600* (2024). [pdf]

Abbasiantaeb, Zahra, and Mohammad Aliannejadi. "Generate then Retrieve: Conversational Response Retrieval Using LLMs as Answer and Query Generators." *arXiv preprint arXiv:2403.19302* (2024). [pdf]

Aliannejadi, Mohammad, **Zahra Abbasiantaeb**, Shubham Chatterjee, Jeffrey Dalton, and Leif Azzopardi. "TREC iKAT 2023: A Test Collection for Evaluating Conversational and Interactive Knowledge Assistants." *In Proceedings of the 47th International ACM SIGIR Conference on Research and Development in Information Retrieval*, pp. 819-829, 2024. [pdf]

Abbasiantaeb, Zahra, Yifei Yuan, Evangelos Kanoulas, and Mohammad Aliannejadi. "Let the llms talk: Simulating human-to-human conversational qa via zero-shot llm-to-llm interactions." *In Proceedings of the 17th ACM International Conference on Web Search and Data Mining*, pp. 8-17. 2024. [pdf]

Abbasiantaeb, Zahra, Suzan Verberne and Jian Wang. "Unveiling hidden links: A machine learning pipeline for extracting and matching patent in-text references to scientific publications", under review of JASIST, 2024.

Abbasiantaeb, Zahra, Chuan Meng, David Rau, Antonis Krasakis, Hossein A. Rahmani, and Mohammad Aliannejadi. "LLM-based Retrieval and Generation Pipelines for TREC Interactive Knowledge Assistance Track (iKAT) 2023." *TREC*, 2023.

Murgia, Emiliana, **Zahra Abbasiantaeb**, Mohammad Aliannejadi, Theo Huibers, Monica Landoni, and Maria Soledad Pera. "ChatGPT in the Classroom: A Preliminary Exploration on the Feasibility of Adapting ChatGPT to Support Children's Information Discovery." *In Adjunct Proceedings of the 31st ACM Conference on User Modeling, Adaptation, and Personalization*, pp. 22-27. 2023. [pdf]

Darvishi, Kasra, Newsha Shahbodaghkhan, **Zahra Abbasiantaeb**, and Saeedeh Momtazi. "PQuAD: A Persian question answering dataset". *Computer Speech & Language* 80 (2023): 101486. [pdf]

Abbasiantaeb, Zahra, Suzan Verberne, and Jian Wang. "Optimizing BERT-based reference mining from patents." *PatentSemTech 2022* (2022): 4. [pdf]

Abbasiantaeb, Zahra, and Saeedeh Momtazi. "Entity-aware answer sentence selection for question answering with transformer-based language models." *Journal of Intelligent Information Systems* 59.3 (2022): 755-777. [pdf]

Abbasiantaeb, Zahra and Saeedeh Momtazi. "Text based question answering from information retrieval and deep neural network perspectives: A survey" *Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery* 11.6 (2021): e1412. [pdf]

HONORS AND AWARDS

Received SIGIR student travel grant from ACM.	2024
Ranked 1st in TREC iKAT 2023 competition.	2023
Received SIGIR Registration grant from WIR (Woman In the IR).	2022
Ranked 1st based on GPA, Amirkabir University of Technology, Tehran, Iran.	2020
Invited to Exchange Program, Passau, Germany.	2020
Ranked 5, based on GPA, Amirkabir University of Technology, Tehran, Iran.	2018
Offered direct admission to graduate school, Amirkabir University of Technology, Tehran, Iran.	2017
Ranked 212, in the National University Entrance Exam among more than 70,000 students, Iran.	2014

ACADEMIC SERVICES

Co-organizer: TREC Interactive Knowledge Assistant Track (iKAT).	2024
Conference Reviewer: CLEF, SIGIR, CIKM, LLM4Eval and E-commerce workshops of SIGIR.	2024
Co-organizer: TREC Interactive Knowledge Assistant Track (iKAT).	2023

INVITED TALKS

Simulation of Conversation, Qazvin Islamic Azad University (QIAU), Iran.	May 2024

TEACHING EXPERIENCE

Information Retrieval 0, B.Sc., University of Amsterdam (UVA)	Fall 2024
Information Retrieval 0, B.Sc., University of Amsterdam (UVA)	Fall 2023
An introduction to Natural Language Processing (NLP), Hamrah Academy	Summer 2021
Information Retrieval and Web Search, M.Sc., Amirkabir University of Technology (AUT)	Fall 2019
Machine Learning, M.Sc., Amirkabir University of Technology (AUT)	Spring 2019
Artificial Intelligence, B.Sc., Amirkabir University of Technology (AUT)	Spring 2018
System Design and Analysis, B.Sc., Amirkabir University of Technology (AUT)	Fall 2016
Advanced Computer Programming, B.Sc., Amirkabir University of Technology (AUT)	Spring 2016
Principals of Computer and Programming, B.Sc., Amirkabir University of Technology (AUT)	Fall 2015

SKILLS

Programming Languages	**Expert:** Python, JAVA, R, C/C++, C#. **Familiar:** MATLAB, VHDL, Verilog, and Assembly.
Frameworks and Tools	**Expert:** Pytorch, TensorFlow, Keras, NumPy, SciPy, Pandas, Seaborn, NLTK, Matplotlib. **Familiar:** Haddop, Weka.
Database Systems	**Expert:** SQLite, MySQL, SQLServer, Hive. **Familiar:** MongoDB, HBase.
Operating Systems	MacOS, Linux (Ubuntu), Windows.
Web Development	HTML5, CSS, JavaScript, jQuery, PHP, XML, JSON, Laravel.

LANGUAGES

Persian (Native), **Turkish** (Native, Iran-Hamedan dialect), **English** (Fluent, TOEFL Score 104).