Sajad Ebrahimi

Email | LinkedIn | Github | Website | Toronto, ON

RESEARCH INTERESTS

- Natural Language Processing
- Information Retrieval
- Deep Learning

EDUCATION

M.A.Sc. in Computer Engineering | University of Guelph   Canada | Fall 2023 -
- **CGPA**: 90/100
- **Thesis**: Generative Learning-to-Rank based on Denoising approach

B.Sc. in Computer Engineering | Ferdowsi University of Mashhad   Iran | Fall 2018 - Winter 2023
- **CGPA**: 81/100
- **Selected courses**: Fundamentals of Information Retrieval(A+), Data Mining(A+), Database(A+)

RESEARCH EXPERIENCE

Graduate Research Assistant | University of Guelph   Fall 2023 -
Supervisors: Dr. Ebrahim Bagheri and Dr. Fattane Zarrinkalam
- Developing low-resource ranker based on Reinforcement Learning algorithms - Working on Generative Learning-to-Rank model

Research Intern | Toronto Metropolitan University   Fall 2022 - Summer 2023
Supervisor: Dr. Ebrahim Bagheri
- Improving dense retriever utilizing Entity Linking - Enhancing the performance of QPP models by enriching the representation of queries

Research Assistant | Ferdowsi University of Mashhad   Summer 2021 - Summer 2022
Supervisor: Dr. Behshid Behkamal
- Designing an effective data structure - Developing scrapers to find universities' course catalogs data - Text summarizing and Keyword extracting by state-of-the-art models

SKILLS

Languages: Python, C, C++, Java
Python Frameworks and Packages:
- PyTorch, TensorFlow, Transformers, Pandas, NumPy, Matplotlib, SKlearn, NLTK, spaCy
- Django, Django Rest Framework, Flask, Fastapi
- Selenium, Pytest, Doctest, BeatifulSoup4
- python-telegram-bot, Tweepy

Databases: PostgreSQL, MongoDB, SQLite, MySQL
Misc: Git, Docker, Elasticsearch, Nginx, GraphQL, HTML/CSS, LaTeX, Unix-based OS

PUBLICATIONS

Gender Disentangled Representation Learning in Neural Rankers   MLJ'24
Sh.SeyedSalehi, S.Salamat, N.Arabzadeh, **S.Ebrahimi**, M.Zihayat, E.Bagheri

Estimating Query Performance Through Rich Contextualized Query Representations   ECIR'24
S.Ebrahimi, M.Khodabakhsh, N.Arabzadeh, E.Bagheri

Reviewerly: Modeling the Reviewer Assignment Task as an Information Retrieval Problem   Industry Day@CIKM'24
N.Arabzadeh, **S.Ebrahimi**, S.Salamat, M.Bashari, E.Bagheri

Authors Know the Best: Leveraging Authorship for Benchmarking the Reviewer Assignment Problem   In prepration
S.Ebrahimi, S.Salamat, N.Arabzadeh, M.Bashari, E.Bagheri

Reinforcement Learning for Effective low-resource Ranking   In prepration
Sh.Soleimany, **S.Ebrahimi**, Sh.SeyedSalehi, F.Zarrinkalam, E.Bagheri

Nearest Neighbor QPP: A Dual-Stage Approach to Enhancing QPP Models   In prepration
S.Ebrahimi, A.Bigdeli, N.Arabzadeh, F.Zarrinkalam, E.Bagheri

From Noise to Order: Diffusion-Powered Learning-to-Rank   In prepration
S.Ebrahimi, H.Wu, Y.Yuan, N.Arabzadeh, B.Mitra, F.Zarrinkalam, E.Bagheri

WORK EXPERIENCE

Data Scientist | REVIEWERLY   Toronto, Canada | Nov 2023 -
- Trained a peer reviewer assignment model inspired by the Dense Retriever's concept for academic papers.
- Formulated a pipeline for clustering proposals and selecting an expert from the relevant pool for each cluster.

Data Analyst | KAVA TAHLIL   Tehran, Iran | Sept 2021 - Aug 2022
- Developed a scraper to gather data from various sources of the Tehran Stock Exchange and store it in MongoDB.
- Designed data models for different types of stocks and organized data.
- Recognized, analyzed, and interpreted trends and patterns in complex financial data.

TALKS

- Reviewerly: A High Quality Peer Reviewer Suggestion Application, *OpenAlex Virtual User Conference*   May 2024
- Intro to Neural Information Retrieval, *Special Topics in Information Retrieval, University of Guelph*   Nov 2023

AWARDS AND ACKNOWLEDGEMENTS

- University of Guelph College of Engineering Dean's Graduate Entrance Scholarship, University of Guelph   2023
- Entrance Award in Recognition of Student Excellence in the College of Engineering   2023
- Ranked 10 among over 80 teams in the 6th AmirKabir university programming league   2019
- Ranked amongst the top 1% of 144k participants in the Nationwide Entrance exam of Iranian universities   2018

SELECTED PROJECTS

Neural Retriever utilizing Entities   2023
A retrieval model that enriches the representation of the queries and passages by the representation of their entities.

QR Code Ticket System   2022
An app that generates a QR code for users and provides a QR reader for the receptionist to verify each ticket.

REFERENCES

Dr. Ebrahim Bagheri | Full Professor at Toronto Metropolitan University
bagheri@torontomu.ca

Dr. Fattane Zarrinkalam | Assistant Professor at University of Guelph
fzarrink@uoguelph.ca