Sajad Ebrahimi

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RESEARCH INTERESTS

- Natural Language Processing
- Information Retrieval
- Deep Learning

EDUCATION

M.A.Sc. in Computer Engineering   Guelph, Canada | 2023 - Present
University of Guelph

B.Sc. in Computer Engineering   Mashhad, Iran | 2018 - 2023
Ferdowsi University of Mashhad

- **Overall GPA**: 3.25/4 (16.18/20)
- **Selected courses**: Fundamentals of Information Retrieval(A), Fundamentals of Data Mining(A), Database(A)

RESEARCH EXPERIENCE

Graduate Research Assistant | Toronto Metropolitan University   Toronto, ON | Oct 2023 - Present
Under the supervision of Professor Ebrahim Bagheri and Professor Fattane Zarrinkalam

Research Intern | Toronto Metropolitan University   Toronto, Canada - Remote | Sept 2022 - Oct 2023
Under the supervision of Professor Ebrahim Bagheri @ LS3

- Worked on improving the result of dense retriever for obstinate queries of the MS-MARCO dataset utilizing Entity Linking.
- Worked on enhancing the performance of query performance predictor by reaching the representation of queries

Research Assistant | Ferdowsi University of Mashhad   Mashhad, Iran | July 2021 - Sept 2022
Under the supervision of Professor Behshid Behkamal

- Designed an effective data model which contains 19 essential features of each course; Developed a scraper that stores course data from universities' course catalogs.
- Utilized state-of-the-art models to summarize and extract keywords of each course description

SKILLS

Python:

- 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, C, Java

Soft Skills: Communication, Leadership, Teamwork, Flexibility

PUBLICATIONS

Estimating Query Performance Through Rich Contextualized Query Representations
Submitted to ECIR 2024 | 2023
S.Ebrahimi, M.Khodabakhsh, N.Arabzadeh, E.Bagheri

Course Dataset Generation from Universities Course Catalogs   In Preparation | 2023
S.Ebrahimi, M.Abolfazli, B.Behkamal

WORK EXPERIENCE

Data Analyst | K<small>AVA</small> T<small>AHLIL</small>   Tehran, Iran - Part-Time - Remote | Sept 2021 – Aug 2022
- Developed a scraper to gather data from various sources of the Tehran Stock Exchange and store it in MongoDB.
- Design data models for different types of stocks and organize data into usable formats.
- Identify, analyze, and interpret trends and patterns in complex data sources.

Python Developer | F<small>REELANCE</small>   Mashhad, Iran | March 2021 - April 2022
- Developed *Bahar Charity* website back-end utilized Django Rest Framework. Beneficiaries can pay appointments bill and administrators can get various reports on invoices and appointments.
- Developed *Somchin* mobile app utilized Django Rest Framework. Injuries to cattle can be logged and a report can be generated during each treatment step. The admin panel provides access to all reports and users' activity.
- Developed a script to synchronize the databases of different hypermarkets to track the inventory of each good in an integrated platform.

Backend Developer Intern | Z<small>IMA</small>   Mashhad, Iran | Sept 2020 – Feb 2021

Web Developer Intern | I<small>LIASYSTEM</small> C<small>O.</small>   Mashhad, Iran | Aug 2019 – Feb 2020

AWARDS AND ACKNOWLEDGEMENTS

- CEPS Dean's Graduate Entrance Scholarships [E6077], University of Guelph, 2023
- Entrance Award in Recognition of Student Excellence in the College of Engineering and Physical Sciences, University of Guelph, 2023
- Ranked amongst the top 2% of 144,000 participants in the Nationwide Entrance exam (Konkur) of Iranian universities, 2018

PROJECTS

Neural Retriever utilized Entities   P<small>YTORCH</small>, <small>SENTENCE-TRANSFORMERS</small> | 2023
This a retrieval model which enriches the representation of the queries and passages by the representation of their entities.

Dataset preprocessing, Frequent pattern discovery and Clustering on Digikala dataset
                  P<small>ANDAS</small>, M<small>LXTEND</small>, S<small>KLEARN</small> | S<small>PRING</small> 2021
My project for the Data Mining course at Ferdowsi University of Mashhad.

QR code ticket system   F<small>ASTAPI</small> | S<small>PRING</small> 2022
This service generates a unique QR code for each registered user and provides a QR reader for the receptionist to verify each ticket powered by Fastapi.

VOLUNTEER EXPERIENCE

- **Reviewer and Executive chair** of the 3-Minutes Presentation Competition of Ferdowsi University of Mashhad, Oct 2021
- **Senior Executive Committee Member** of the International Conference on Computer and Knowledge Engineering (ICCKE), Oct 2021
- **Senior Member** of the Scientific Society of Computer Engineering Students of Ferdowsi University of Mashhad, May 2019 - Sept 2022
- **Senior Member** of the Linux Users' Group of Ferdowsi University of Mashhad, 2022
- **Executive Committee Member** of the National Conference on Advances in Enterprise Architecture (NCAEA), Dec 2021
- **Senior Executive Member** of the FUM Collegiate Programming Contest (FCPC), Nov 2019

TEACHING EXPERIENCE

Teacher Assistant | Ferdowsi University of Mashhad   Mashhad, Iran | Sept 2019 - July 2023
- Fundamentals of Information Retrieval, Dr. M. Kahani, Fall 2022 - Spring 2023
- Fundamentals of Data Mining, Dr. B. Behkamal, Spring 2022
- Database, N. Armin (Fall 2021) - Dr. M. Kahani (Spring 2022)
- Computer Architecture, M. Mazroui (Fall 2020), Dr. S. ErshadiNasab (Spring 2021)
- Discrete Mathematics, Dr. M. Mirzavaziri, Spring 2020
- Advanced Programming, Dr. R. Ramezanian, Spring 2020
- Fundamentals of Computer Programming, Dr. R. Ramezanian, Fall 2019

LANGUAGES

- **English**: Fluent
- **Persian**: Native

REFERENCES

References will be available upon request.