

# Mohammad Mahdi Abdollahpour

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Toronto, ON  
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Graduate Researcher

Portfolio: [mahdiabdollahpour.github.io](https://mahdiabdollahpour.github.io)  
[github.com/mahdiabdollahpour](https://github.com/mahdiabdollahpour)  
[linkedin](#)

## EDUCATION

### MASc Information Engineering

University of Toronto (UofT)

Jan 2022 — Present

- Research focus:
  - Controllable Text Generation for Text Style Transfer
  - Information Retrieval for review-based item retrieval
- Under supervision of [Prof. Scott Sanner](#)

### B.Sc. of Computer Engineering

Amirkabir University of Tech. (AUT)

2016 — 2020

- Average Grade: 19.36/20, GPA: 4/4
- Ranked 1st

## PUBLICATIONS

*Self-Supervised Contrastive BERT Fine-tuning for Fusion-based Reviewed-Item Retrieval* - Mohammad Mahdi Abdollah Pour, Parsa Farinneya, Armin Toroghi, Anton Korikov, Ali Pesaranghader, Touqir Sajed, Manasa Bharadwaj, Borislav Mavrin and Scott Sanner - ECIR2023 [Paper](#), [Code](#)

*DiffuDetox: A Mixed Diffusion Model for Text Detoxification* - Griffin Floto, Mohammad Mahdi Abdollah Pour, Parsa Farinneya, Zhenwei Tang, Ali Pesaranghader, Manasa Bharadwaj and Scott Sanner - ACL2023 ([Paper](#))

*Recipe-MPR: A Test Collection for Evaluating Multiaspect Preference-based Natural Language Retrieval* - Haochen Zhang, Anton Korikov, Parsa Farinneya, Mohammad Mahdi Abdollah Pour, Manasa Bharadwaj, Ali Pesaranghader, Kristin Huang, Yixin Lok, Zhaoqi Wang, Nathan Jones and Scott Sanner - SIGIR2023 [Paper](#), [Code](#)

*Active Learning for Rumor Identification on Social Media* - Parsa Farinneya, Mohammad Mahdi Abdollah Pour, Sardar Hamidian, Mona Diab - EMNLP2021 [Paper](#), [Slides](#)

*Comparative study of text representation and learning for Persian named entity recognition* - Mohammad Mahdi Abdollah Pour, Saeedeh Momtazi - ETRI Journal [Paper](#)

## TECHNICAL EXPERIENCE

### Research Collaboration - LG Electronics Research

Working on IR and NLP

Jan 2022 — Present

Toronto, ON, Canada

- Our industry partner for UofT research.

### Research Assistant - D3M Lab, University of Toronto (UofT)

Working on IR and NLP

Jan 2022 — Present (expected graduation date: Dec 2023)

Toronto, ON, Canada

- Main research:
  - Multi-objective Text Decoding (under progress)
  - Contrastive Unlikelihood training for Text Style Transfer (Pytorch) (under review)
  - Self-supervised contrastive learning for item retrieval based on user reviews (TF) (published ECIR2023)
- Collaboration:
  - LLMs for Query-driven Multiaspect Preference Retrieval over Knowledge Graphs (under progress)
  - In-Context Learning framework for Text Detoxification (under review)
  - Text Detoxification with Diffusion Seq2Seq Models (Pytorch) (published ACL2023)
  - Commonsense Reasoning for food recipe Question Answering (Pytorch) (published SIGIR2023)
- Under supervision of [Prof. Scott Sanner](#)

### Research Intern - National University of Singapore (NUS)

Adversarial Machine Learning, Developing a plugin to obfuscate images to enhance privacy

Jul 2019 — Sep 2019

Singapore

- Performing an adversarial attack on facial recognition by using projected gradient descent with momentum on faces in latent space (JS, Python, TF)
- Attacking face detection with PGD (JS, TF).
- A brief report can be found in this [link](#). Outputs can be found in this [link](#).
- Under supervision of [Prof. Reza Shokri](#)

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## Research Assistant + Bachelor's thesis - NLP Lab, Amirkabir University of Technology (AUT)

Feb 2018 — Sep 2020

*Cross-Lingual Sequence Tagging + Developing Persian NLP toolkit*  
*Tehran, Iran*

- Cross-Lingual Multi Task Learning for BIO sequence tagging tasks such as: NER, POS, Text Chunking and Argument Mining (Python, Pytorch)
- Developed Persian NLP toolkit for AUT NLP lab.
- Under supervision of [Prof. Saeedeh Momtazi](#)

## Research Assistant

Oct 2020 — May 2021

*Rumour Detection*  
*Remote*

- Active transfer learning for low resource Rumour Detection on Tweets, [Paper](#) (Python, Pytorch, Sk-learn) (published EMNLP2021)
- Under supervision of [Dr. Sardar Hamidian](#) at George Washington University

## Research and Development Intern in NLP - [Diallog](#)

Jun 2018 — Dec 2018

*Developing Chatbot*  
*Tehran, Iran*

- Developing Persian chatbot system using Deep Encoder-Decoder with LSTM layers and attention mechanism, [code](#) (Python, TF)
- Question Answering system based on clustering methods, [code](#) (Python, Sk-learn)

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## TEACHING EXPERIENCE

### University of Toronto

- |   |             |
|---|-------------|
| • MIE1517 Introduction to Deep Learning Grading HWs and exams, holding support sessions                         | Winter 2023 |
| • CSC401/2511 Natural Language Computing, Head TA   | Winter 2023 |
| • ECE324H Machine Intelligence, Software and Neural Networks Holding tutorials, Grading HWs, projects and exams | Winter 2023 |
| • MIE451 Decision Support Systems by Jamal Chu, Holding tutorials, Grading HWs and exams                        | Fall 2022   |
| • CSC303 Social and Information Networks by Ian Berlot-Attwell, Holding tutorials, Grading HWs and exams        | Winter 2022 |

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## SKILLS

|                       |   |
|-----------------------|---|
| Languages (Skilled)   | Python, JAVA  |
| Languages (Familiar)  | SQL, Javascript, C++, MATLAB  |
| Tools                 | Tensorflow (TF), PyTorch, Keras, NumPy, Pandas, Matplotlib, SciPy, Sk-learn |
| Quantitative Research | Natural Language Processing, Deep Learning, Information Retrieval           |
| Communication         | English, Persian (native speaker)   |