Amirhossein Abaskohi *September 19, 2000*

Masters Student Majoring in Computer Science

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Education

University Of British Columbia   SEPT 2023 - Now

M.Sc in Computer Science

Department of Computer Science

- **GPA:** A
- Working in UBC NLP Group

University Of Tehran   SEPT 2018 - APR 2023

B.Sc in Computer Engineering   *Ranked top 10% in class*

Department of Electrical and Computer Engineering

- **Cumulative GPA:** 17.94/20.00 (3.8/4) [Last Two Years GPA: 18.42 (4/4)] (Faculty Average: 15.10/20.00)

Research Interests

- Natural Language Generation
- NLP for Common-sense Reasoning
- Cross-lingual NLP
- Multi-modal Models
- Ethics and Fairness in ML
- Human Centered AI

Publications

Benchmarking Large Language Models for Persian: A Preliminary Study Focusing on ChatGPT   2024

Amirhossein Abaskohi, Sara Baruni, Mostafa Masoudi, Nesa Abbasi, Mohammad Hadi Babalou, Ali Edalat, Sepehr Kamahi, Samin Mahdizadeh Sani, Nikoo Naghavian, Danial Namazifard, Pouya Sadeghi, and Yadollah Yaghoobzadeh
LREC-COLING 2024

Beyond Words: A Multimodal and Multilingual Exploration of Persuasion in Memes   2024

Amirhossein Abaskohi[*], Amirhossein Dabiriaghdam[*], Lele Wang, Giuseppe Carenini
International Workshop on Semantic Evaluation co-located with NAACL 2024

Can LLMs be Lateral Thinkers?   2024

Pouya Sadeghi [*]**Amirhossein Abaskohi**[*], Yadollah Yaghoobzadeh
International Workshop on Semantic Evaluation co-located with NAACL 2024

Paraphrasing-Guided Data Augmentation for Contrastive Prompt-Based Few-Shot Fine-Tuning   2023

Amirhossein Abaskohi, Yadollah Yaghoobzadeh, Sascha Rothe
Annual Meeting of the Association for Computational Linguistics (ACL) 2023

A Large-Scale Analysis of Persian Tweets Regarding Covid-19 Vaccination   2023

Taha ShabaniMirzaei, Houmaan Chamani, **Amirhossein Abaskohi**, Zhivar Sourati Hassan Zadeh, Behnam Bahrak
Springer's Social Network Analysis and Mining Journal

PEACH: Pre-Training Sequence-to-Sequence Multilingual Models for Translation with Semi-Supervised Pseudo-Parallel Document Generation   2023

Amirhossein Abaskohi[*], Alireza Salemi[*], Sara Tavakoli, Yadollah Yaghoobzadeh, Azadeh Shakeri
Workshop on Technologies for Machine Translation of Low-Resource Languages (LoResMT) co-located with EACL 2023

Persian Emotion Detection using ParsBERT and Imbalanced Data Handling Approaches   2022

Amirhossein Abaskohi, Nazanin Sabri, Behnam Bahrak
arXiv preprint arXiv:2211.08029

A Comparative Analysis of Sarcasm Detection Using Generative-based and Mutation-based Data Augmentation   2022

Amirhossein Abaskohi, Arash Rasouli[*], Tanin Zeraati[*], Behnam Bahrak
International Workshop on Semantic Evaluation co-located with NAACL 2022

Automatic Speech recognition for Speech Assessment of Persian Preschool Children   2022

Amirhossein Abaskohi, Fatemeh Mortazavi, Hadi Moradi
arXiv 2203.12886

Research Experience

Graduate research assistant at the University of British Columbia
Jan 2024 - May 2024

Under Supervision of Prof. Giuseppe Carenini, Prof. Brad Hackinen, and Prof. Francesco Trebbi

This collaborative endeavor involves Western University's Ivey School and the University of California, Berkeley, focusing on regulatory documents. Our objective is to examine how various writing styles utilized in rule comments affect the responses received from regulators.

Undergraduate research assistant at the University of Tehran
Jul 2022 - Mar 2023

Under Supervision of Prof. Yadollah Yaghoobzadeh and Dr. Sascha Rothe

As part of this project, I delved into the few-shot fine-tuning of smaller language models such as RoBERTa. This involved employing paraphrase generation techniques with large language models like GPT-3, as well as leveraging contrastive learning methods.

Undergraduate research assistant at the University of Tehran
Nov 2021 - Jun 2022

Under Supervision of Prof. Azadeh Shakery and Prof. Yadollah Yaghoobzadeh

I was working on creating pseudo-translation documents for the pre-training stage of a multilingual transformer-based language model. We mapped sentences from one language to another by using bilingual dictionaries with distinct monolingual corpora. The quality of mapped sentences is improved by training a model reordering to enhance the quality of sentences for a language.

Undergraduate research assistant
Sept 2021 - Jun 2022

Under Supervision of Prof. Pedram Rooshenas

During this remote research experience, I developed a VAE-based generative model to simultaneously produce a picture and its caption. We had two goals: 1) Checking the effect of text and image fusion in the latent space on the quality of generative models, and 2) Using the model to create artificial image captioning datasets.

Undergraduate research assistant at the University of Tehran
Aug 2021 - Mar 2023

Under Supervision of Prof. Behnam Bahrak

During my tenure at the University of Tehran's Data Analytics Lab, I've undertaken various projects. These include binary sarcasm classification, analyzing Persian tweets amidst the Covid pandemic in Iran, and Persian emotion detection.

Undergraduate research assistant at the University of Tehran
Nov 2020 - Sept 2021

Under Supervision of Prof. Hadi Moradi

We created an AI-driven cognitive assessment platform tailored for preschoolers to gauge their school readiness. Initially, I focused on the backend development of the website, implementing an AI-powered testing system. Subsequently, we proposed a novel pre-training objective for the Wav2Vec model to enhance the ASR system used in speech-based tests, achieving a cutting-edge model for automatic speech recognition in Persian.

Volunteering

- Artificial Intelligence and Machine Learning Mentor in Summer School 2021 — Summer 2021
- Freelance Content Creation on Medium — Jul 2021-Present
- Freelance Content Creation on YouTube — Jul 2021-Present
- Working on The Backend API System of Cognitive Tests For Preschool Children Project — Nov 2020-Feb 2021

Honors and Awards

UBC International Tuition Award
Feb 2023

Recipient of the UBC International Tuition Award, recognizing academic excellence and providing financial support to eligible international graduate students at UBC.

Admission to the University of British Columbia Computer Science department
Feb 2023

Successfully admitted to the Computer Science department at the University of British Columbia, recognized as one of the top computer science departments globally. This achievement reflects academic excellence and underscores the rigorous standards met to gain acceptance into a prestigious institution known for its cutting-edge research and innovative programs.

Supporter Foundation of University of Tehran Scholarship
Sept 2020

Awarded to the top 500 students among 35000 students in the university.

Best Undergraduate Project Award
Sept 2022

My project on "Pre-Training Sequence-to-Sequence Multilingual Models for Translation with Semi-Supervised Pseudo-Parallel Document Generation" has been awarded as the best undergraduate project in the 16th Project Day competition of ECE school of the University of Tehran.

Admission to University of Tehran   Sept 2018

Ranked 46th (regional rank), and 1125th (national rank) among 144,437 participants in the Iranian Nationwide University Entrance Exam for Mathematics and Physics discipline.

Iran's Elites Foundation Membership and Financial Support   Nov 2021

After the Automatic Speech Recognition for Preschool Children project, I have been awarded a 1-year scholarship from this foundation.

Skills

Programming Languages: Python, C\C++, SQL, C#, Java, Dart, JavaScript, GNU Octave, MATLAB, Verilog HDL

Technologies: Git, Docker, Jupyter, Google Colab, LaTeX

Tools: Tensorflow, Matplotlib, Pytorch, Jupyter, CUDA, Django, Flask, GraphQL, Apache Airflow, PowerBI

Operating Systems: Linux (Ubuntu, Parrot, Kali), Windows, Cloudera

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Work Experience

Back-end Developer   Nov 2022 - Oct 2023

Mate Machine Inc

- **Skills used:** ASP.NET, MicoService, Docker, CI/CD, EntityFramework, GRPC, RabbitMq, Grafana, DataDog, PowerBI, Swagger, Agile, Scrum

Back-end Developer   Dec 2022 - May 2023

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- **Skills used:** ASP.NET, RabbitMq, Dapper, Agile, Scrum, Grafana

Machine Learning Researcher   Sept 2021 - Jan 2023

University of Tehran Science and Technology Park

- **Skills used:** Python, Research, Tensorflow, PyTorch, NLP, Data Analysis

Full-stack developer internship   Jun 2022 - Sept 2022

System Group

- **Skills used:** ASP.NET, CI/CD, Angular

Financial data science remote internship   Aug 2021 - Oct 2021

World Data Science Institute

- **Skills used:** Python, Tensorflow, Research, Project Leadership, Flask, Django, GraphQL

Back-end Developer   Jun 2020 - Mar 2021

Idea Varzan System

- **Skills used:** ASP.NET, Swagger, SeqLog, Agile, Scrum, Grafana, Dart