

# Alireza Salemi

Manning College of Information and Computer Sciences, University of Massachusetts, Amherst, MA, USA

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## Education

### University of Massachusetts Amherst

MSc/PhD in Computer Science

Massachusetts, USA

September 2022 - Current

- **Courses:** Information Retrieval (4/4), Computer Vision (4/4)
- GPA: 4.0/4.0

### University of Tehran

BSc in Computer Engineering

Tehran, Iran

September 2017 - February 2022

- Ranked 1<sup>st</sup> among 103 Computer Engineering students
- GPA: 19.60/20 (4/4)

### Imam Khomeini High School

Diploma in Mathematics and Physics Discipline

Booshehr, Iran

September 2013 - June 2017

- Ranked 1<sup>st</sup> among 63 Mathematics and Physics Discipline students
- GPA: 19.83/20

## Interests

**Natural Language Processing** Summarization, Translation, Text Generation, Hate Speech Detection.

**Neural Information Retrieval** Multi-modal Information Retrieval, Retrieval Enhanced Machine Learning, Dense Passage Retrieval.

## Publications

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

Under Review @ EACL 2023

Alireza Salemi, Amirhossein Abaskohi, Sara Tavakoli, Yadollah Yaghoobzadeh and Azadeh Shakery

### ARMAN: Pre-training with Semantically Selecting and Reordering of Sentences for Persian Abstractive Summarization

EMNLP 2021

Alireza Salemi, Emad Kebriaei, Ghazal Neisi Minaei and Azadeh Shakery

### UTNLP at SemEval-2021 Task 5: A Comparative Analysis of Toxic Span Detection using Attention-based, Named Entity Recognition, and Ensemble Models

SemEval @ ACL-IJCNLP 2021

Alireza Salemi, Nazanin Sabri, Emad Kebriaei, Behnam Bahrak and Azadeh Shakery

## Research Experience

### Research Assistant at Center for Intelligent Information Retrieval

University of Massachusetts Amherst

Under supervision of Hamed Zamani

September 2022 - Current

- Worked on Retrieval Enhanced Machine Learning.
- Worked on Multi-modal Information Retrieval for Outside-knowledge Visual Question Answering Passage Retrieval.

### Research Assistant at Information Retrieval Laboratory

University of Tehran

Under supervision of Azadeh Shakery and Yadollah Yaghoobzadeh

January 2021 - September 2022

- Worked on designing a pre-training objective for multi-lingual language models.
- Worked on designing a pre-training objective for a summarization language model. The paper about this work was accepted to EMNLP 2021.

### Research Assistant at Data Analysis Laboratory

University of Tehran

Under supervision of Azadeh Shakery and Behnam Bahrak

August 2020 - February 2021

- Worked on designing a system for annotating toxic (hate speech) spans of a piece of text. The paper about this work was accepted to SemEval @ ACL-IJCNLP 2021.

### Research Assistant at Tehran Institute for Advanced Studies (TeIAS)

Tehran, Iran

Under supervision of Mohammad Mousavi and Hossein Hojjat

July 2020 - December 2020

- Worked on model learning for software product lines.

## Research Assistant at Formal Methods Laboratory

Under supervision of Fatemeh Ghassemi Esfahani

University of Tehran

June 2020 - October 2020

- Worked on runtime enforcement decentralized algorithm that, given an automata-based specification of unwanted message sequences, prevents specific unwanted sequences from being sent.

## Work Experience

### Sotoon

Natural Language Processing Data Scientist

Tehran, Iran

November 2021 - August 2022

- worked on a new AutoML service for text classification on a large scale.
- worked on sentiment analysis of customer's reviews.
- worked on automatically accept/rejection of customers comments.

## Teaching Experience

2020-2021 **Artificial Intelligence**, Head TA, Under supervision of Yadollah Yaghoobzadeh and Hakimeh Fadaei

University of Tehran

2020-2021 **Programming Languages and Compiler Design**, Head TA, Under supervision of Fatemeh Ghassemi

University of Tehran

2020-2021 **The Theory of Formal Languages and Automata**, TA, Under supervision of Hossein Hojjat.

University of Tehran

2020 **Database Design**, TA, Under supervision of Azadeh Shakery.

University of Tehran

2020 **Design and Analysis of Algorithms**, TA, Under supervision of Hamid Mahini.

University of Tehran

2019 **Engineering Mathematics**, TA, Under supervision of Mahdi Tale Masouleh.

University of Tehran

## Achievements

2022 **UMass Amherst CICS Scholarship**, 4k\$ scholarship given to selected entering graduate students.

UMass Amherst

2021 **Best Thesis Award in Computer Engineering**, BSc thesis was selected as the best thesis in the computer engineering department

University of Tehran

2020 **UT Sponsors Foundation Top Student**, Selected as the top student at the computer engineering department.

University of Tehran

2020 **University of Tehran Scholarship**, Received scholarship from the UT Sponsors Foundation as an exceptional talent.

University of Tehran

2019 **F.O.E (Faculty of Engineering) Award**, Ranked 1<sup>st</sup> among all of 103 Computer Engineering students.

University of Tehran

2019 **UT Sponsors Foundation Top Student**, Selected as the top student at the computer engineering department.

University of Tehran

2019 **University of Tehran Scholarship**, Received scholarship from the UT Sponsors Foundation as an exceptional talent.

University of Tehran

2018 **UT Sponsors Foundation Top Student**, Selected as the top student at the computer engineering department.

University of Tehran

2018 **F.O.E (Faculty of Engineering) Award**, Ranked 1<sup>st</sup> among all of 103 Computer Engineering students.

University of Tehran

2018 **University of Tehran Scholarship**, Received scholarship from the UT Sponsors Foundation as an exceptional talent.

University of Tehran

2017 **University of Tehran Scholarship**, Received scholarship from the UT Sponsors Foundation as an exceptional talent.

University of Tehran

2017 **University Entrance Examination**, Ranked 217<sup>th</sup> (national) and 59<sup>th</sup> (regional) among 148k candidates.

Iran

## Skills

**Programming** Python (Pandas, PyTorch, NumPy, Scikit-learn, Tensorflow, Keras, Transformers. etc.), R, C/C++, Java.

**Databases** MySQL, PostgreSQL, Neo4j, Redis, Elastic Search.

**Soft Skills** Time Management, Teamwork, Problem-solving, Fast-Learning.

## Languages

**English** Fluent (TOEFL score: 113/120, Reading: 30, Listening: 28, Speaking: 26, Writing: 29)

**Persian** Native proficiency

**Arabic** Familiar

References available upon request.