

# Araz Gholipour Shilabin

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ArazShilabin

## Research Area

Natural Language Processing, Deep Learning, Machine Learning, Text Mining.

## Education

2017–2022 **Bachelor's Degree (Computer Engineering)**, *University of Tabriz*, Tabriz Iran, **CGPA - 3.64/4**.

### Relevant Courses GPA - 4/4:

- Data Mining: A+
- Computational Intelligence: A
- Database Design: A+
- Software Engineering 2: A+
- Software Engineering 1: A+
- Algorithm Design: A+
- Data Structure: A+
- Advanced Programming: A+
- Basics of Programming: A+

## Honors and Awards

### ACM-ICPC Tehran Regionals:

- ACM-ICPC Tehran Regionals 2019 ranked: **9**
- ACM-ICPC Tehran Regionals 2018 ranked: **29**
- ACM-ICPC Tehran Regionals 2017 ranked: **36**

## Publications

○ A Najafi, **A Gholipour-Shilabin**, R Dehkharghani, A Mohammadpur-Fard, M Asgari-Chenaghlu. ComStreamClust: a communicative multi-agent approach to text clustering in streaming data, Under Review, 2021.

## Standardized Test Scores

Jul 2021 **TOEFL iBT**.  
Score: **102**

Reading: 24

Writing: 25

Listening: 28

Speaking: 25

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## Projects

### 2021 **Movie Recommender System.**

Contributions:

- Implemented a movie recommender system using the item-based and user-based collaborative filtering from scratch.
- The classifier predicts the score a user might give to a movie on a 1-5 scale. the model is trained on the Movielens dataset.

### 2020 **Language Translation.**

An AI model for translating English to German.

Contributions:

- Implemented a custom made Transformer-based model from scratch using Tensorflow V2 and trained a translator using it.

### 2020 **Sentiment analysis using BERT and CNN.**

The model analyzes the sentiment of a given sentence

Contributions:

- The model was trained using the BERT tokenizer and embedder for encoding and CNN for the classification.

### 2020 **Shakespeare Character Based Poem Generation.**

Contributions:

- Using AI for fun and generating poem similar to Shakespeare's poems using LSTM as the core model

### 2020 **Optical character recognition (OCR).**

Contributions:

- Did a 2-month long internship at RAYin Samaneh Arta (RASA) which resulted in an OCR software that extracted Iranian identification cards' information from images and output them as text

### 2020 **Kaggle Competition (SIIM-ISIC Melanoma Classification).**

The model identifies melanoma (cancerous skin) in images of skin lesions

Contributions:

- Handling extremely unbalanced data
- Constructing Multi-Modal systems
- Stacking and ensembling different models such as Random Forest and XGBoost to achieve better results
- Using transfer learning on pretrained models such as VGG19 and Xception

### 2019 **TSP using ACO and PSO.**

Contributions:

- Solved the Traveling Salesman Problem (TSP) using the Ant Colony Optimization (ACO)
- Used the Particle Swarm Optimization (PSO) for ACO's parameter tuning

### 2018–2019 **Persian News Stream Clustering.**

Contributions:

- Constructed a fully-customized AI system in a team of 6 engineers
- Implemented a news clustering system that did online topic modeling on streaming data

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## Skills

### Programming Languages

Python, C/C++, C#, Java

### Programming Frameworks

Tensorflow, Keras, Pytorch, Flask

## Programming Libraries

Numpy, Pandas, Scikit Learn, Matplotlib, Seaborn

## Other

Latex, Git, Linux, MySQL, Microsoft office

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## Languages

Azerbaijani	Native
Persian	Native
English	Fluent
German	Elementary
Arabic	Elementary

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## References

- Associate Prof. Rahim Dehkharghani - Department of Computer Engineering, Isik University, Istanbul, Turkey: [rahim.dehkharghani@isikun.edu.tr](mailto:rahim.dehkharghani@isikun.edu.tr)
- Associate Prof. Jafar Tanha - Department of Computer Engineering, University of Tabriz, Tabriz, Iran: [jafar.tanha.pnu@gmail.com](mailto:jafar.tanha.pnu@gmail.com)
- Dr. Vahed Qazvinian - Co-Founder, CTO (Praisidio, Inc), San Francisco, California, United States: [vahed@umich.edu](mailto:vahed@umich.edu)