

# AREF SHAHBAKHSH

Master of Computer System Architecture, AI Research Assistant

Homepage  ♦ Email  ♦ Telephone  ♦ GitHub  ♦ Scholar  ♦ LinkedIn 

## RESEARCH INTERESTS

- ♦ Theory of Machine Learning
- ♦ Computational Biology
- ♦ Computer Vision
- ♦ Natural Language Processing

## EDUCATION

### Sharif University of Technology

Master of Computer System Architecture

Thesis: "Prediction of mRNA Subcellular Localization using Deep Learning and Investigating Optical Implementation Feasibility."

Advisor: Dr. S. Koohi

2021 - 2024

Cumulative GPA: 3.6 /4

### University of Sistan and Baluchestan

Bachelor of Computer Science,

Thesis: "Run Machine Learning Algorithms on News Website."

Advisor: Dr. M.M Keikha

2016 - 2021

Ranked 1st

Thesis Grade: 20 /20

## PUBLICATIONS

- [1] LGLoc: A Language Model-Driven Graph Neural Network for mRNA Localization (**Submitted on Scientific Reports, First Author**)
- [2] DRCNN-CR: Utilizing Deep Residual Convolutional Neural Networks to Forecast Colorectal Cancer through cfDNA Methylation Patterns (**Submitted on BMC Bioinformatics, Second Author**)
- [3] Kalematis, M., Noroozi, A., **Shahbakhsh, A.**, & Koohi, S. (2024). ParaAntiProt provides paratope prediction using antibody and protein language models. *Scientific Reports*, 14(1), 1-15. <https://doi.org/10.1038/s41598-024-80940-y>

## Work EXPERIENCES

### Software Engineer

Taftan Intelligent Programmers company

Developing Android Applications.

Supervisor: Dr. Y.K. Tamandani

May 2019 - Sep 2021

### Frontend Developer

University of Sistan and Baluchestan

Developing part of the University of Sistan and Baluchestan website.

Supervisor: Dr. M.M. Keikha

Jul 2018 - Aug 2018

### Android Developer

Bazaar, the Largest Persian App Store

Developing Photo Hider Plus Application.

Jun 2019

## ACADEMIC EXPERIENCE

### Teacher Assistant

- ♦ Introduction to Bioinformatics
- ♦ Theory of formal languages and Automata
- ♦ Computer Networks
- ♦ Data Structures
- ♦ Data Bases
- ♦ Fundamentals of Programming

Spring 2023

Fall 2023

Fall 2023

Fall 2020

Spring 2020

Fall 2018

Instructor: Dr. S. Akbari

Instructor: Dr. M. Dolati

Instructor: Dr. L. Arshadi

Instructor: Dr. M.M. Keikha

Instructor: Dr. B. Lakzaei

Instructor: Dr. E. Shamsi

### Scientific Staff

- ♦ Artificial Intelligence Staff (Head Staff)

The hardwar-event-Sharif University of Technology

Fall 2024

### Workshops

- ♦ Hugging Face: A Platform to Democratize Open-Source AI
- ♦ Winter Seminar Series (Advanced Topics in Computer Science)

Spring 2023

Spring 2024

## NOTABLE COURSES

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### Bachelor

Data Mining	19.5/20	Advanced Programming	18.5/20
General Mathematics 2	19.9/20	Mobile device programming	19/20
Computational theory	19/20	Design of Algorithms	17/20
Data Bases	20/20	Design of Fundamentals of Information	19/20
Topics in Computer Science	19/20	Design of Mathematical Software	17/20

### Master

Structural bioinformatics	17/20
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## SKILLS

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- **Programming Languages:** C++, Verilog, C#, Python, Java, Javascript, SQL, Tcl
- **Framework and Tools:** Pytorch, Tensorflow, Pytorch Geomtric, Scikit- learn, Django, React.js
- **Software:** MATLAB, Modelsim, VMD, Unity, Android Studio, Unreal Engine, Booksim, Kali Linux

## HONORS AND AWARDS

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### Fellowship from Sharif University of Technology

As an Exceptionally Talented student, for Master of Computer System Architecture 2021 - 2024

### Fellowship from University of Sistan and Baluchestan

As an Exceptionally Talented student, for Bachelor of Computer Science 2016 - 2021

**Ranked 152 (among over 12,000 participants) in Iran's national graduate entrance exam in Computer Engineering** 2021

## LANGUAGES

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**English** Toefl Score (Reading:20, Listning:20, Speaking:18, Writing:20)

**Persian** Native

## REFERENCES

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### Somayyeh Koohi, PhD.

- Associate Professor, Department of Computer Science and Engineering
- Sharif University of Technology
- Visiting Scholar: University of California
- Email: koohi@sharif.edu

### Saeedeh Akbari, PhD.

- Postdoctoral Researcher
- KTH Royal Institute of Technology
- Alma Mater: Sharif University of Technology
- Email: akbaris@kth.se

### Yahya Kord, PhD.

- Assistant Professor, Department of Computer Science
- University of Sistan and Baluchistan
- Alma Mater: Chandigarh University
- Email: yahya.kord@cs.usb.ac.ir