# 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** 

2021 - 2024

Master of Computer System Architecture

Cumulative GPA: 3.6 /4

Thesis: "Prediction of mRNA Subcellular Localization using Deep Learning and

Investigating Optical Implementation Feasibility."

Advisor: Dr. S. Koohi

University of Sistan and Baluchestan

2016 - 2021

Bachelor of Computer Science, Thesis: "Run Machine Learning Algorithms on News Website." Ranked 1st Thesis Grade: 20/20

Advisor: Dr. M.M Keikha

## **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] ParaAntiProt: Paratope Prediction Using Antibody and Protein Language Models (Submitted on Scientific Reports, Third Author)

## Work EXPERIENCES

**Software Engineer** 

May 2019 - Sep 2021

Taftan Intelligent Programmers company Developing Android Applications.

Supervisor: Dr. Y.K. Tamandani

Frontend Developer

Jul 2018 - Aug 2018

University of Sistan and Baluchestan

Developing part of the University of Sistan and Baluchestan website.

Supervisor: Dr. M.M. Keikha

Android Developer

Jun 2019

Bazaar, the Largest Persian App Store Developing Photo Hider Plus Application.

## ACADEMIC EXPERIENCE

## **Teacher Assistant**

<ul> <li>Introduction to Bioinformatics</li> </ul>	Spring 2023	Instructor: Dr. S. Akbari
<ul> <li>Theory of formal languages and Automata</li> </ul>	Fall 2023	Instructor: Dr. M. Dolati
<ul> <li>Computer Networks</li> </ul>	Fall 2023	Instructor: Dr. L. Arshadi
<ul> <li>Data Structures</li> </ul>	Fall 2020	Instructor: Dr. M.M. Keikha
⋄ Data Bases	Spring 2020	Instructor: Dr. B. Lakzaei
<ul> <li>Fundamentals of Programming</li> </ul>	Fall 2018	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

Spring 2023

• Winter Seminar Series (Advanced Topics in Computer Science)

Spring 2024

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## **NOTABLE COURSES**

#### **Bachelor** Data Mining Advanced Programming 19.5/20 18.5/20 General Mathematics 2 19.9/20 Mobile device programming 19/20 Computational theory Design of Algorithms 19/20 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

## **SKILLS**

- 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

### 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

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

## REFERENCES

### 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