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# Borna Barahimi

## Education

2018–2022 **B.Sc. Computer Science**, *University of Tehran* (*us news ranking: 387*), Tehran, Iran, GPA: 3.55/4.

## Research Interests

- AI, Machine Learning, and Deep Learning
- Bioinformatics and Computational Biology
- Health informatics and Diagnostic informatics
- Natural language processing

## Publications

Amir Darijani, Aria Mostaejeran, Mohammad Reza Jamali, Aref Sayareh, Mohammad Javad Salehi, and **Borna Barahimi**. Fury 2d simulation team description paper 2016. ***RoboCup 2016 Symposium and Competitions: Team Description Papers, Leipzig, Germany***, 7 2016. URL: [https://archive.robocup.info/Soccer/Simulation/2D/TDPs/RoboCup/2016/FURY\\_SS2D\\_RC2016\\_TDP.pdf](https://archive.robocup.info/Soccer/Simulation/2D/TDPs/RoboCup/2016/FURY_SS2D_RC2016_TDP.pdf).

Nader Zare, Mahtab Sarvmali, Omid Mehrabian, Amin Nikanjam, Seyed Hossein, Aref Sayareh Khasteh, Omid Amini, **Borna Barahimi**, Arshia Majidi, and Aria Mostajeran. Cyrus 2d simulation 2019. ***RoboCup 2019***, 2019. URL: [http://archive.robocup.info/Soccer/Simulation/2D/TDPs/RoboCup/2019/CYRUS\\_SS2D\\_RC2019\\_TDP.pdf](http://archive.robocup.info/Soccer/Simulation/2D/TDPs/RoboCup/2019/CYRUS_SS2D_RC2019_TDP.pdf).

## Awards and Honors

- Second Place in *Tehran Mental Health Electronics Startup Weekend 2019*, University of Tehran
- First place in Soccer Simulation League in *RoboCup Asia-Pacific 2018*, Kish, Iran
- Rank 389 among 145,000 participants in *the Iranian university entrance exam 2018* for bachelor's degree
- Second Place in Soccer Simulation League in *NasirCup2017*, K. N. Toosi University of Technology
- Participant in Soccer Simulation League in *RoboCup2017*, Nagoya, Japan
- Winner of The Technical Challenge in Soccer Simulation League in *IranOpen2017*, Tehran, Iran

- First place in Soccer Simulation League in *ShirazOpen2016*, Shiraz University of Technology
- *Best New Team* in Soccer Simulation League in *RoboCup2016*, Leipzig, Germany

## Language Proficiency

English IELTS exam will be taken in October  
 Persian Native proficiency

## Professional Experiences

- July 2019 **Backend Developer**, *VClinic*, Tehran, Iran.
- July 2021 VClinic is an in-treatment and post-treatment patient communication and follow-up platform. Providing EHR, Telehealth, and AI-enabled services for patients and physicians. I was responsible for designing and implementing our platforms, including several modules such as Electronic Health Record (EHR), Electronic Prescription, and drug interaction detection. more information about the product can be found [here](#).
- Oct 2016 **Robotics Programmer**, *Atomic Energy High School*, Tehran, Iran.
- July 2019 Cyrus Soccer Simulation 2D Team is a RoboCup Team that I joined when I was in high school. This experience provided me with an opportunity to use programming and algorithms to solve real-world problems. We Designed and implemented algorithms within the provided competition framework for the Soccer Simulation 2D field in the RoboCup competition. Algorithms were mainly inspired by the actions and techniques of real soccer players. More information about the Soccer Simulation 2D field can be found [here](#).

## Teaching Experiences

- Aug 2020 **Teacher Assistant**, *Karyar College*, Tehran, Iran.
- Present KARYAR is a social startup to train skilled software developers in underprivileged communities of Iran and connect them to well-paying jobs in the technology sector.

## Volunteer Experiences

- Aug 2020 **Teacher Assistant Representative**, *Karyar College*, Tehran, Iran.
- Present
- May 2019 **Community Representative**, *University of Tehran*, Tehran, Iran, Computer Science Academic Association.
- Oct 2020

## Notable Projects

- Compiler Project** *Development of COOL programming language compiler*  
 This was the project for the compiler course of university, and it consisted of lexer, parser, semantics, and code generation. It required the implementation of the first three parts. Our responsibility was to understand different concepts of compiler implementation and complete the basic project that was available for us based on specifications of the COOL language. (see <https://theory.stanford.edu/~aiken/software/cool/cool.html>)

## **Suffix Tree** *Implementation of a tool for working with suffix trees*

It was our final project for *the Design and Analysis of Algorithms* course, and we were asked to develop a graphical tool for creating suffix trees based on text data and running different algorithms such as Longest Repeated Substring, Longest Palindromic Substring, and Longest Common Substring. (see <https://github.com/bornabr/SuffixTree>)

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## **Skills**

**Programming Languages** Python, C++, R, L<sup>A</sup>T<sub>E</sub>X, Ruby, JavaScript, Bash

**Databases** SQL, MongoDB, Redis

**Web Development** Node.js, HTML5, CSS, Express.js, Docker, React.js, Ruby on Rails, JQuery, Web-pack

**Data Mining** numpy, pandas, scikit-learn, keras, TensorFlow

**Industry Knowledge** Agile Development, Object-Oriented Programming (OOP), Web Development, Model-View-Controller (MVC), REST API Development, Design Thinking

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## **Selected Courses**

- Data Mining: A+
- Compiler: A+
- Statistical Methods: A
- Data Structures and Algorithms: A
- Database Management Systems: A+
- General Biology: A
- Design and Analysis of Algorithms: A
- Advanced Programming: A

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## **References**

**Mr. Nader Zare**, *Teacher/Team Leader*, Team Leader of Cyrus RoboCup Team.  
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