

# Helia Vafaei, Computer Engineer

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## LINKS

[LinkedIn](#), [GitHub](#), [Personal website](#)

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## EDUCATION

Oct 2020 – Sep 2024	<b>B.Sc. in Computer Engineer, Iran University of Science and Technology</b> Among the top 4 universities in Iran according to <a href="#">QS University Rankings</a> GPA: <ul style="list-style-type: none"><li>Last two years: <b>3.55/4.0 (17.14/20.0)</b> on Iranian Scale)</li><li>Overall: <b>3.51/4.0 (17.16/20.0)</b> on Iranian Scale)</li></ul>	Tehran, Iran
Sep 2016 – Set 2020	<b>Diploma in Mathematics and Physics, Roshangaran High School</b> Overall Grade: <b>3.91/4.0 (19.34/20)</b> on Iranian Scale)	Tehran, Iran

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## RESERCH INTEREST

Software Engineering  
Artificial Intelligence  
Software Verification and Testing  
Programming Languages and Compilers  
Empirical Software Engineering  
Software Models and Architectures  
Object-Oriented Analysis and Design

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## SKILLS

**Programming Languages:**  
Python, React, HTML, CSS, JavaScript, C++, C#, C, SQL

**Libraries and Frameworks:**  
React, Bootstrap, .Net, Django, Keras, TensorFlow, Numpy

**Environmental and Tools:**  
Git, Azure Devops, Linux, Bash, Postman

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## SELECTED PROJECTS

### NoWaste:

- Participated as a [Front-end](#) developer in developing NoWaste, a web application aimed at minimizing food waste by connecting restaurants and cafes with surplus food to potential consumers.
  - Designed and implemented RESTful APIs to facilitate efficient data exchange between frontend and backend systems.
  - Dockerized the application to streamline deployment and ensure consistency across development and production environments.
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- Developed and maintained CI/CD pipelines, automating testing, building, and deployment processes to enhance development efficiency and ensure robust application delivery.
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#### Anti-spoofing algorithm:

- [The project](#) was for checking whether a face in the video is alive or not.
- In this project, two different models, including a feature-based and a deep learning model, were used.
- For the feature-based model, SVC was used.
- For the deep model, VGG16 and some extra un-pretrained layers were used.
- The data came from CASIA-FASD.

#### Computer system security project:

- The main aim of [this project](#) is retrieving information from the victim device using Bash in Linux and displaying it in a simple website.

#### Software quality measurement and it's quantification:

- By running [this project](#), the quality of a software can be measured quantitatively. In the software quality article, factors are presented that depend on a number of criteria, but the criteria is qualitative, so we use a number of metrics to achieve a quantity.

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## HONORS AND CERTIFICATION

Oct 2023	Programming for Everybody (Getting Started with Python), <a href="#">Coursera</a>
Jul 2022	Algorithms on Strings, <a href="#">Coursera</a>
Mar 2022	Algorithms on Graphs, <a href="#">Coursera</a>
Dec 2021	Data Structures, <a href="#">Coursera</a>
Nov 2021	Algorithmic Toolbox, <a href="#">Coursera</a>
Jul 2022	Ranked within <b>the Top 1% among about 155000</b> in Iranian University Entrance Exam

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## ACADEMIC EXPERIENCE

Oct 2023 – May 2024	<b>Honorary Member</b> Voluntary work in Computer Engineering Scientific Association at Iran University of Science and Technology (CESA IUST)
Feb 2024 – Jul 2024	<b>Teaching Assistant</b> Course: Data transmission Instructor: <a href="#">Dr. Marzieh Sheikhi</a> Semester: Winter 2024
Jan 2023 – Jun 2023	<b>Teaching Assistant</b> Course: Artificial intelligence Instructor: <a href="#">Dr. Arash Abdi</a> Semester: Fall 2023
Feb 2023 – Jul 2023	<b>Teaching Assistant</b> Course: Database design Instructor: <a href="#">Dr. Hossein Rahmani</a> Semester: Winter 2023

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Set 2022 – Jan 2023	<b>Teaching Assistant</b> Course: Fundamentals of Computer Programming Instructor: <a href="#">Dr. Marzieh Davoodabadi Farahani</a> Semester: Fall 2022
Feb 2022 – Jul 2022	<b>Teaching Assistant</b> Course: Advanced Computer Programming Instructor: <a href="#">Dr. Sauleh Eetemadi</a> Semester: Winter 2022
Sep 2021 – Jan 2022	<b>Teaching Assistant</b> Course: Advanced Computer Programming Instructor: <a href="#">Dr. Sauleh Eetemadi</a> Semester: Fall 2021

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## WORK EXPERIENCE

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Jul 2024 – present	<b>Teacher, Farzanegan High School</b> Farzanegan High School is one of the high schools of the National Organization for the Development of Talents ( <a href="#">SAMPAD</a> ). I have been working as programming computer teacher.
Aug 2023 – Sep 2023	<b>Front-end Developer, Megamouj-e Iranian</b> Iranian Megamouj Company is a first-class manufacturing and industrial knowledge-based company in the field of telecommunications and computers. My main responsibilities included designing and developing various sections of the Eskab (School Service System) website.

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## LANGUAGES

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Persian: Native Proficiency      English : Full Professional Proficiency      IELTS Score: To be taken soon

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## REFERENCES

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Dr. Sauleh Eetemadi: Assistant Professor in Department of Computer Engineering of IUST  
[sauleh@iust.ac.ir](mailto:sauleh@iust.ac.ir)  
 Dr. Mehrdad Ashtiani: Assistant Professor in Department of Computer Engineering of IUST  
[m\\_ashtiani@iust.ac.ir](mailto:m_ashtiani@iust.ac.ir)  
 Dr. Marzieh Malekimajd: Assistant Professor in Department of Computer Engineering of IUST  
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