

Mohammad Mehdi Afkhami | CV

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Education

Vali-e-Asr University of Rafsanjan

Rafsanjan, Iran

B.Sc. Computer Engineering

2018–Present

- Last 62 credits GPA without calculating summer semester: 16.73/20 (3.46/4.00)
- CGPA: 16.2/20, 140 credits
- Major Area: Software Engineering.
- Thesis: Solving community detection problem using evolutionary algorithm in social networks
- Thesis grade: 20/20 (4.0/4.0)

Publications

- Fahimeh Dabaghi-Zarandi, **Mohammad Mehdi Afkhami**, Mohammad Hosein Ashoori, Parsa KamaliPour, Mohammad Amin Ahmadi, "Solving community detection problem using evolutionary algorithm in social networks" (*in preparation*)
- Fahimeh Dabaghi-Zarandi, Mohammad Hosein Ashoori, Parsa KamaliPour, Mohammad Amin Ahmadi, **Mohammad Mehdi Afkhami**, "A deep learning approach to community detection." (*in preparation*)

Experience

Research

Undergraduate Research Assistant

Rafsanjan, Iran

Department of Computer Engineering, Vali-e-Asr University of Rafsanjan

Jan 2022–Present

- Supervisor: Dr. Fahimeh Dabaghi-Zarandi
- Field: Community Detection
- My responsibilities include: Gathering information, Reading papers, Programming, Testing the solution, Writing first draft of the paper.

Teaching

Undergraduate Teaching Assistant

Rafsanjan, Iran

CE Department, Vali-e-Asr University of Rafsanjan

Mar 2021–Present

Design and Analysis of Algorithms

Dr. Fahimeh Dabaghi-Zarandi Fall 2022, Spring 2022, Fall 2021, Spring 2021

Data Structures

Dr. Fahimeh Dabaghi-Zarandi Fall 2022, Spring 2022, Fall 2021, Spring 2021

Artificial Intelligence

Dr. Amir Hossein Hadjahmadi Fall 2022

Database

Dr. Mojtaba Sabbagh-Jafari Fall 2022

Fundamentals of Programming

Dr. Amir Hossein Hadjahmadi Fall 2022

Discrete Mathematics

Dr. Fahimeh Dabaghi-Zarandi Fall 2021, Spring 2022

Operating Systems

Dr. Fahimeh Dabaghi-Zarandi Spring 2022

Instructor for The Summer Coding Bootcamp

Vali-e-Asr University Scientific Association of Computer Engineering

Summer 2022

Teaching game development & software architecture using Unity3D & Blender

Others.....

Team Co-Founder & Game Developer

Null References [↗](#) , Indie Game Development Team

Feb 2020–Present

Research Interests

- Computer Graphics
- Agent-Based Modelling
- Crowd Simulation
- Machine Learning
- Human Animation and Avatars
- Virtual Reality

Selected Relevant Coursework

Computer Graphics: 20/20

Advance Programming: 20/20

Discrete Mathematics: 18.36/20

Software Engineering: 18/20

Software Engineering Lab: 20/20

★ [Click here to see more ↗](#)

Data Structure: 19.67/20

Artificial Intelligence: 20/20

Fundamental of Programming: 16/20

Digital Logic Design: 19/20

Operating System: 18.53/20

Selected Projects

Uncertainty [↗](#)

Uncertainty is an action-adventure space-shooter game

Feb 2021–Present

- Utilized software architecture principles such as design patterns and agile methodologies to overcome challenges which included management of artistic and programming aspects of the game

Automata Simulator [↗](#)

Simulator that supports DFA, DPDA, and Turing machines, for educational purposes

Fall 2020

- Observer pattern was used for the logic and a simple implementation of bezier curves for the user interface

Symmetry [↗](#)

A game designed to test our short-term memory for visual information

Spring 2020

Quine McCluskey [↗](#)

An implementation of the Quine McCluskey minimization method for minimizing boolean functions

Fall 2019

- Windows Presentation Form was used for user interfaces

Maze [↗](#)

This was a university project relating to the data structures course

Fall 2019

- DFS implementation with good visuals and animations

- A naive maze generator

★ [Click here to see more projects ↗](#)

Test Scores

TOEFL: On October 5th, 2022

GRE: Not taken yet

Extra Curricular Activities

Member Of Scientific Staff

Computer Engineering Scientific Association

Vali-e-Asr University of Rafsanjan

May 2019–Jun 2021

Member of Executive Staff

Video Games Association

Vali-e-Asr University of Rafsanjan

Oct 2020–Jun 2021

Computer skills

Art & Game Development: Unity, Blender, Krita, **Programming Languages:** C, C++, C#, Python, Godot, MATLAB, Java, SQL
Frameworks & Libraries: OpenGL, Numpy, Pandas, **Software Engineering:** Refactoring, Debugging, Unit Testing, Agile Methodology
Tools: Jupyter Notebook, \LaTeX , Git, Markdown **Others:** Linux, MS Office, Research & Searching ability

Languages

Persian: Native language

English: Fluent

References

Dr. Fahimeh Dabaghi-Zarandi **Rafsanjan, Iran**
Assistant Professor, f.dabaghi@vru.ac.ir
Department of Computer Engineering, Faculty of Engineering, Vali-e-Asr University of Rafsanjan

Dr. Mojtaba Sabbagh-Jafari **Rafsanjan, Iran**
Assistant Professor, mojtaba.sabbagh@vru.ac.ir
Department of Computer Engineering, Faculty of Engineering, Vali-e-Asr University of Rafsanjan

Dr. Amir Hossein Hadjahmadi **Rafsanjan, Iran**
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