

Seyed Mohammadreza Alavi

School of Electrical and Computer Engineering - University of Tehran

[🏠 Website](#) [🐙 Github](#) [🌐 LinkedIn](#) [✉ Email](#)

EDUCATION

B.Sc. in Computer Engineering <i>University of Tehran</i>	Sep 2021 - Present
High School Diploma in Mathematics <i>Rouzbeh High School</i>	Sep 2018 - May 2021

RESEARCH INTERESTS

- Artificial Intelligence (Machine Learning, Deep Learning, Neural Networks, Natural Language Processing, Generative Models, Algorithmic Recourse)
- Data Science
- Robotics
- Security and Privacy
- Cryptography, Blockchain, and Cryptocurrencies
- Networking

CERTIFICATIONS

Neural Networks and Deep Learning (Certificate) <i>Coursera - DeepLearning.AI</i>	Oct 2024
Introduction to Blockchain & Bitcoin (Certificate) <i>Maktabkhoneh</i>	Sep 2024
Machine Learning Specialization (Certificate) <i>Coursera - DeepLearning.AI - Stanford University</i>	Sep 2023
Machine Learning with Python (Certificate) <i>Maktabkhoneh</i>	Sep 2023
Advanced Python Programming (Certificate) <i>Maktabkhoneh</i>	Aug 2022
Network Principles (Certificate) <i>Maktabkhoneh</i>	Oct 2022
ICDL (Certificate) <i>ICDL Institute</i>	Apr 2019

EXPERIENCE

Research Assistant

University of Waterloo

Prof. Amir-Hossein Karimi

Research Assistant

Tehran Institute for Advanced Studies (TEIAS) - Khatam University

Prof. Behnam Bahrak

Supervisor

Artificial Intelligence Course

Prof. Yadollah Yaghoobzadeh and Dr. Hakimeh Fadaei

Teaching Assistant

Artificial Intelligence Course

Prof. Yadollah Yaghoobzadeh and Dr. Hakimeh Fadaei

Teaching Assistant

Data Science Course

Prof. Yadollah Yaghoobzadeh and Prof. Behnam Bahrak

Teaching Assistant

Engineering Probability and Statistics

Prof. Mostafa Tavassolipour and Prof. Abdo-le-hossein Vahabie

Teaching Assistant

Introduction to Computing Systems and Programming Course

Prof. Mohammadreza Hashemi and Prof. Hadi Moradi

Instructor

Python and Algorithm Course

Rouzbeh High School

SELECTED ACADEMIC PROJECTS

Star Wars

This project is a simulation of graphical star wars game that a ship tries to eliminate enemies and saves the hostage.

U-Taxi

This project is a simulation of an online taxi service that can be run on local host.

Snake Game

This project is a simulation of graphical snake game that a snake tries to eat mice.

Artificial Intelligence Projects

These projects are AI course projects include: Genetic Algorithm, Reinforcement Learning, Hidden Markov Model, Regression and Classification, Convolutional Neural Networks, and Clustering.

RISC-V Processor

These projects include RISC-V single cycle, RISC-V multicycle, and RISC-V pipeline.

Xv6 Operating System Projects

These projects include some modifications to the Xv6 operating system and we have added some features to this operating system.

Tiny Me

This project is a matching engine for a stock market that we have completed.

Function Craft

Function Craft is a functional programming language that we have designed and implemented in four phases.

Voice Call

This project is a distributed live voice call system using WebRTC and Qt framework. It's a peer-to-peer audio communication platform that captures and transmits real-time voice data between two peers.

Network Simulator

This project is a simulation of network functionality with different routing algorithms like RIP and OSPF in various network topologies

SKILLS

Python, C/C++, HTML/CSS, Verilog/SystemVerilog, Algorithm, Data Structure, Artificial Intelligence, Machine Learning, Deep Learning, Neural Networks, Matlab, IC DL, Linux, Java, SQL, Database, Compiler, Cryptography, Blockchain, Cryptocurrencies, Algorithmic Recourse, LaTeX, Git, Data Science, Networking

SELECTED UNIVERSITY COURSES

Advanced Programming: 20/20

Engineering Probability and Statistics: 20/20

Data Structures and Algorithms: 19/20

Algorithm Design: 19/20

Artificial Intelligence: 19.5/20

Data Science: 18.5/20

Cryptocurrencies (Graduate Course): 17.1/20

LANGUAGES

Persian (Native)

English