

Iman Rahmati

updated: 15 Jan 2024

✉ Email: iman.rahmati@sharif.edu imanrht@gmail.com

🌐 Web page: imanrht.github.io

🐙 Github: <https://github.com/ImanRHT>

in LinkedIn: [linkedin.com/in/iman-rahmati](https://www.linkedin.com/in/iman-rahmati)

Research Interests: Distributed Systems, Mobile Edge Computing, Deep Reinforcement Learning, Federated Learning, Distributed Machine Learning, Software Defined Networking, Performance Evaluation

EDUCATION

MSc. Computer Software Engineering

Sharif University of Technology (SUT)

Graduated Sep 2022, 17.36/20 GPA (23 units)

Thesis Title: A Novel Resource Allocation Algorithm in Edge Computing with Deep Reinforcement Learning

Supervisor: Prof. Ali Movaghar [🔗](#)

BSc. Industrial Engineering

Khajeh Nasir Toosi University of Technology (KNTU)

Graduated Sep 2019

ACADEMIC EXPERIENCE

Research Assistant

- **Research Assistant at Performance and Dependability Laboratory (PDL)** [🔗](#)
Supervisor: Prof. Ali Movaghar SUT, 2020-present
Research Theme: Designed and implemented an algorithm leveraging deep reinforcement learning to optimize computation offloading decisions in mobile edge computing, with a primary focus on enhancing the Quality of Experience (QoE) for end-users of mobile applications.

Teaching Assistant

- **Performance Evaluation of Computer Systems (Head TA)** SUT, 2020-present
Prof. Ali Movaghar and Dr. Mahdi Dolati [🔗](#)
- **Software Defined Networking (Head TA)** SUT, 2022
Prof. Ali Movaghar and Dr. Mohammad Hosseini [🔗](#)
- **Verification of Reactive Systems** SUT, 2021
Prof. Ali Movaghar
- **Theory of Machines and Languages** SUT, 2021
Prof. Ali Movaghar

Sub-Reviewer at 27th International Computer Conference

CSICC, 2022

Computer Society of Iran (CSICC) [🔗](#)

IEEE website published papers from this conference. [🔗](#)

PUBLICATION

- I. Rahmati, H. Shah-Mansouri, A. Movaghar, “QOCO: A QoE-Oriented Computation Offloading Algorithm based on Deep Reinforcement Learning for Mobile Edge Computing”, submitted to IEEE Internet of Things Journal 2023. [!\[\]\(467d80e979964f7f8c752fb22248b5b7_img.jpg\)](#) [!\[\]\(b71552d33dbf62adf5e5199a70ee02bf_img.jpg\)](#)
- I. Rahmati, H. Shah-Mansouri, A. Movaghar, ”Federated Deep Reinforcement Learning for Dependent Task Offloading in Mobile Edge Computing”, work in progress.

HONORS

- ❖ Ranked Top 10% in the Department of Computer Engineering among M.Sc. Students, SUT, Class 2019 Jul 2022
- ❖ Ranked 55th among 30,000 Participants in the Nationwide University Entrance Exam of Computer Engineering for M.Sc. in the Field of Software Engineering Aug 2019
- ❖ Ranked Top 1% among 180,000 Participants in the Nationwide University Entrance Exam for B.Sc. in the Field of Mathematics and Physics Jul 2014
- ❖ Achieving the 3th position in the RoboCup Competition (IranOpen) Mar 2012

ACADEMIC PROJECTS

- **QoE Maximization in Mobile Edge Computing** SUT, 2022
Optimizing Decision-Making for Computation Offloading in Mobile Edge Computing using Deep Reinforcement Learning (Dueling Deep Q-Networks) [!\[\]\(815df092dd722ee9268ef8e6d0193e3a_img.jpg\)](#)
Supervisor: Prof. Ali Movaghar and Dr. Hamed Shah-Mansouri [!\[\]\(c72edb9626cad660f3a9f5fb0f22a68c_img.jpg\)](#)
- **Design Mobile Edge Computing Environment** SUT, 2021
Modeling and Simulation of Mobile Edge Computing under Resource Constraints for Delay and Energy Optimization [!\[\]\(0c564128c6342bd2f601e97f4518828a_img.jpg\)](#)
Supervisor: Prof. Ali Movaghar
- **Time Series Analysis** SUT, 2021
Design a Model for forecasting Edge Server Workload using Recurrent Neural Networks such as Long Short Term Memory [!\[\]\(5cb79a1c9acdf5d94bce345803852578_img.jpg\)](#)
Supervisor: Prof. Ali Movaghar
- **Computer Performance Evaluation** SUT, 2020
Simulation and Performance Analysis of M/M/1/K Queue Model with Varied Service Orders (FCFS, Processor Sharing, Discriminatory Processor Sharing) [!\[\]\(cc23775bf31a648cde5902baa397f9aa_img.jpg\)](#)
Supervisor: Prof. Ali Movaghar
- **Distributed Systems** SUT, 2019
A Survey on ‘Verification of Paxos and Raft Protocols in Distributed Consensus’
Supervisor: Dr. Mohammad Izadi [!\[\]\(0f607256894bb1ede5f4e367e10faa26_img.jpg\)](#)
- **Production Planning Optimization** KNTU, 2017
Maximize profit by deciding how many units of each product to produce, considering production costs and demand.
Supervisor: Dr. Amir Abbas Najafi [!\[\]\(b5a96c12e7c148f5f0a1e79e6e3ae06f_img.jpg\)](#)

SELECTED COURSES

- Theory of Distributed Systems	4/4	- Wireless Networking	4/4
- Computer Performance Evaluation	4/4	- Computer Network	4/4
- Verification of Reactive Systems	4/4	- IT Enterprise architecture	4/4
- Advanced Network Security	4/4	- Computer Network Management	3.9/4

SKILLS

- **General:** Networking, Mobile Edge Computing, Deep Reinforcement Learning
- **Programming Languages:** Python, R, Bash, C++
- **Machine Learning:** TensorFlow, PyTorch, Scikit-learn
- **Data Analysis:** Pandas, NumPy, Matplotlib
- **Frameworks & Tools:** Linux, Mininet, Ns-3, Git, L^AT_EX, Vim, Flask, Visio
- **Language Proficiency:** Farsi (Native), English (Working proficiency)
 - TOEFL (IBT) Score: 108/120 (R: 30, L: 28, S: 22, W: 28)

CERTIFICATION

Interactive Learning Tehran Institute for Advanced Studies (TeIAS), 2021
Certification of Completion in Deep Reinforcement Learning Course, Inst: Prof. Majid Nili Ahmadabadi [✉](#)

Machine Learning and Deep Learning in Python Start-Tech Academy, 2020
Certification of Completion in Udemy Online Course

Data Science Tose'e Higher Education Institute, 2019
Certification of Completion in Data Science Course, Inst: Dr. Yaser Zerehsaz [✉](#)

Advanced Python Topics Remis Arjang Institute, 2018
Certification of Completion in Advanced Python Course, Inst: Dr. Peyman Hooshmandi

LPIC1 Anisa Iran Linux House, 2017
Certification of Completion in Linux Administrator Course, Inst: Dr. Mohammad Shakeri

REFERENCES

Prof. Ali Movaghar [✉](#) movaghar@sharif.edu
Professor of Computer Science and Engineering Department, SUT
Visiting Professor of Computer Science Department, University of Michigan

Dr. Hamed Shah-Mansouri [✉](#) hamedsh@sharif.edu
Assistant Professor of Electrical Engineering Department, SUT

Prof. Ali Mohammad Afshin Hemmatyar [✉](#) hemmatyar@sharif.edu
Professor of Computer Science and Engineering Department, SUT

Dr. Mahdi Dolati [✉](#) mahdidolati@ut.ac.ir
Postdoctoral of Institute For Research In Fundamental Sciences Researcher (IPM)

Dr. Mohammad Hosseini [✉](#) hosseini@ipm.ir
Postdoctoral of Institute For Research In Fundamental Sciences Researcher (IPM)