

Milad Rabiei

Email: milad.rabiei.01@gmail.com

Links: milwd.github.io, [Google Scholar](#), [LinkedIn](#)

Education

2019-24 **B.Sc.** Electrical Engineering, Electronics and Communications (GPA: 3.4/4.0)
Shahid Beheshti University, Iran
Thesis: "Landmark Tracking and Object Detection, Complete Vision System for Self-driving Cars"

Research Experience

2020-23 Research Assistant, [Robotics and Intelligent Automation Lab](#), SBU
(Advisor: [Dr. Mohammad Hossein Moaiyeri](#))
2022-24 Research Assistant, [Cyberspace Research Institute](#), SBU
(Advisors: [Dr. Vahideh Moghtadaiee](#) and [Dr. Mina Alishahi](#))

Publications

Working papers

- W1. Alishahi, M., Moghtadaiee, V., Fathalizadeh, A. & **Milad Rabiei**. *Mutual Impact of Feature Selection and Privacy-preserving Mechanisms*, Submitted @ Peer-to-Peer Networking and Applications, [Research Square](#). 2024.
- W2. Moghtadaiee, V., Alishahi, M. & **Milad Rabiei**. *Differentially Private GANs for Generating Synthetic Indoor Location Data*, ArXiv[Preprint], Revise and Resubmit @ International Journal of Information Security, [Arxiv](#). 2024.
- W0. Younesi*, F., Keivanfard*, S., **Milad Rabiei***, Sharifi*, M., GhayourNajafabadi, M., Moadeli, B., Jafari, A. & Moaiyeri, M. H. *An Optimized Platform for Cost-efficient Density-based Tracking Systems*, Manuscript, [Google Drive](#). 2022.

Teaching

Shahid Beheshti University

2023-24 Lead Teaching Assistant, Machine Learning (graduate-level)
2023 Lead Teaching Assistant, Introduction to Artificial Intelligence (graduate-level)
2021-22 Lead Teaching Assistant, Computer Programming

Skills

Programming Python (OpenCV, PyTorch, Keras/TF, Scikit-learn, Selenium, etc), C, MATLAB, Lua
Embedded Nvidia Jetson, Raspberry Pi, Arduino Family, NodeMCU ESP8266, ESP32
Language Persian, English (C1) IELTS (Feb 4th, 2023) Test Result: 7.5 - L(8.5), R(8), W(7), S(7)

Awards & Honors

2023	Recipient of MCI R&D Center Research Grant for Small-size Autonomous Vehicle (Responsibility: Computer Vision and AI)
2022	1 st place, Individual Team Section, Autonomous Vehicles League, IranOpen RoboCup 2022, Certificate
2023	1 st place, Technical Challenge, Autonomous Vehicles League, IranOpen RoboCup 2022
2021	2 nd place, Race Section, Autonomous Cars League Simulation, Fira RoboWorld Cup SDE 2021
2021	1 st place, Race Section, Autonomous Cars League Simulation, Iran Fira RoboWorld Cup 2021, Certificate
2021	2 nd place, Urban Section, Autonomous Cars League Simulation, Iran Fira RoboWorld Cup 2021

Tools & Projects

[ODS](#): Image sample creation/augmentation code for object detection with specific classes.

[Click to Plot](#): Synthetic data point generator for educational classes and workshops.

[Analysis of Private Data Generation](#): A comprehensive study of privacy-preserving techniques, generative networks, and feature selection (W1 paper).

[1:10 Scale Self-driving Car](#): Design and implementation of a novel area-oriented segmentation algorithm for lane tracking and a synthetic image augmentation pipeline for object detection (W3 paper).

[Face/Hand Gesture Detection](#) | [GAN/Conditional GAN for MNIST Dataset](#) | [Ball Balancer with PID control](#) | [Image Recovery with Genetic Algorithm](#) | [Sobel Edge Detection in VHDL](#)

Other Experiences

2024	Member of National Committee, IranOpen RoboCup International Competitions
2023	Member of Technical Committee, IranOpen RoboCup International Competitions
2020-23	Computer Vision and AI Developer, SBU Robotics Team (Auriga)
2023	Machine Learning Course Instructor, Iran RoboCamp , Tehran, Iran
2023	Teacher of Python Programming, Danesh High School , Tehran, Iran
2023	Organizer of Deep Learning Reading Group, Shahid Beheshti Univ. ECE Department
2022	Conference Coordinator: The 4th Iranian International Conference on Microelectronics (IICM 2022), SBU, Tehran, Iran
2022	Conference Coordinator: The 13th Power Electronics and Drives: Systems and Technologies Conference (PEDSTC 2022), SBU, Tehran, Iran

References

Dr. Mohammad Hossein Moaiyeri	Associate Professor, Shahid Beheshti University, Iran, Mail , Scholar
Dr. Reza Ghaderi	Associate Professor, Shahid Beheshti University, Iran, Mail , Scholar
Dr. Mina Alishahi	Assistant Professor, Open Universit�t, The Netherlands, Mail , Scholar
Dr. Vahideh Moghtadaiee	Assistant Professor, Shahid Beheshti University, Iran, Mail , Scholar
Dr. Atefe Aghaei	Assistant Professor, Shahid Beheshti University, Iran, Mail , Scholar