

# Saeed Tafazzol

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## Education

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Sep 2017 - Jul 2021 | **Bachelor's degree of computer engineering, Qazvin Azad University, Qazvin, Iran**  
GPA : 17.85/20

## Work Experience

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2017-2019 | **Mechatronics Research Laboratory (MRL), Qazvin, Iran**  
*Junior developer*

2015-2017 | **Shiraz Soccer 2D simulation team, Shiraz, Iran**  
*Junior developer*

## Teaching Experience

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2018 | **Atomic Energy Highschool, Qazvin, Iran**  
*Instructor for python programming course*

## Research Interests

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Reinforcement Learning, Artificial Intelligence, Machine Learning

## Publications

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- 2019 | 1. Mahmoudi, H., Fatehi, A., Gholami, A., Delavaran, M. H., Khatibi, S., Alaee, B., **Tafazol, S.**, Abbasi, M., Doust, M. Y., Jafari, A., *et al.* Mrl team description paper for humanoid kidsize league of robocup 2019. *Mechatronics Research Lab, Department of Computer and Electrical Engineering, Qazvin Islamic Azad University, Qazvin, Iran* (2019).
- 2018 | 2. Meisam Teimouri, Alireza Fatehi, Mahmoudi, H., Khatibi, S., Alireza Mo-Hafezatkar, Alaee, B., **Tafazol, S.**, Bazargan, S., Alireza Karimi & Moham-Mad Rahmani. MRL Team Description Paper for Humanoid TeenSize League of RoboCup 2018. en (2018).
- 2017 | 3. Asali, E., Moravej, A., Akbarpoor, S., Asali, O., Katebzadeh, M., **Tafazol, S.**, Negahbani, F., Valipour, M., Mirian, S., Mehran, H., *et al.* *Persian gulf soccer 2d simulation team description paper 2017* in *The 21th annual RoboCup International Symposium, Japan, Nagoya* (2017).
- 2016 |

## Selected Projects

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2021	<b>Training an agent to score on an empty goal using binary reward only</b> <i>In order to train an agent solely with binary reward(it is given when the agent scores), curiosity(intrinsic motivation) is used. For further reading: <a href="#">link</a></i>
2021	<b>Curriculum learning in soccer 2D simulation</b>
2020	<b>Ray casting from scratch</b> <i>This project includes Euler angles and pinhole camera model which were implemented from scratch</i>
2019	<b>Estimating an unseen opponent's position in Soccer 2D simulation</b>
2018	<b>Simulation of convection and diffusion in fluids</b>
2018	<b>Implementation of RSA encryption from scratch</b> <i>This project includes methods to make RSA faster such as Karatsuba multiplication and Miller Rabin primality test</i>
2017	<b>Calibration of intrinsic and extrinsic camera parameters in humanoid robots</b>
2016	<b>Obstacle avoidance in humanoid robots</b>

## Honors and Awards

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2018	<b>Ranked 1st in humanoid soccer League</b> <i>RoboCup Asia Pacific, Kish, Iran</i>
2018	<b>Ranked 2nd in humanoid-kidsize soccer League</b> <b>Ranked 2nd in humanoid-teensize soccer League</b> <b>Ranked 1st in humanoid-teensize technical challenge</b> <b>Ranked 1st in humanoid-teensize drop-in challenge</b> <b>Ranked 3rd in humanoid-kidsize drop-in challenge</b> <i>RoboCup WorldCup Competitions, Montreal, Canada</i>
2018	<b>Ranked 1st in humanoid-kidsize soccer League</b> <i>Iranopen, Tehran, Iran</i>
2016	<b>Ranked 6th in 2D Soccer Simulation League</b> <i>RoboCup WorldCup Competitions, Leipzig, Germany</i>
2016-2018	<b>Awarded for research scholarship</b> <i>Qazvin Azad University</i>

## Skills

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**Languages:** *Persian(native) , English(fluent)*

**Programming languages:** *C/C++ , Python, Java, C#*

**frameworks and libraries:** *tensorflow, pytorch, ROS, Opencv, Sklearn*