



Erfan Fathi

Nationality: Iranian **Date of birth:** 22/11/2006 **Gender:** Male

Phone number: (+98) 9013159447 **Email address:** fathye897@gmail.com

WhatsApp Messenger: +989013159447

LinkedIn: <https://www.linkedin.com/in/erfan-fathi-6466921bb/>

Instagram: <https://www.instagram.com/eefaani/>

GitHub: <https://github.com/ErfanFathii>

Home: Iran, Tehran province, Tehran, Naziabad, Khaleghipoor st, Ahmadi st, No18,
1819975714 Tehran (Iran)

ABOUT ME

Mathematics and physics student and AI enthusiast.
11th grade of mathematics and physics (17.66/20)
10th grade of mathematics and physics (18.52/20)

WORK EXPERIENCE

Scientific researcher

Research institutes of Tehran [08/01/2021 – 11/08/2023]

City: Tehran | Country: Iran

- Scientific papers
- Team leader (EMPEROR, Emperor Junior)
- C++ and Python programming language
- Artificial intelligence researcher

Scientific researcher

Atomic Energy high school [15/08/2023 – Current]

City: Tehran | Country: Iran

- Scientific papers
- Team leader (AETeam, Cyrus Junior)
- C++ and Python programming language
- Artificial intelligence researcher
- Technical Committee

LANGUAGE SKILLS

Mother tongue(s): Persian

Other language(s):

English

LISTENING C1 READING C1 WRITING B2

SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

PUBLICATIONS

[2024]

[ATOMIC ENERGY Soccer Simulation 2D Team Description Paper 2024](#) This team description paper presents an overview of the ATOMIC ENERGY team's previous work and recent research topics. In this article, we aim to enhance our understanding and improve the efficiency of offensive players escaping by exploring and expanding our knowledge. To achieve this, we employ the abovementioned artificial intelligence methods to improve the trend of players' attacks.

Fathi, E., & Mazloun, S. (2024). ATOMIC ENERGY Paper. Robocup IranOpen Soccer Simulation 2D League

[2024]

[Cyrus-Junior Soccer Simulation 2D Team Description Paper 2024](#) This paper presents an overview of the recent works of Cyrus-Junior. Last year we tried different methods for players' positioning and formation systems. One method we found interesting and useful is the "Delaunay triangulation" for creating formations for our players. We are going to present this method in this paper.

Mazloun, S., Fathi, E., & Keyhani, P. Cyrus-Junior Paper. RoboCup IranOpen SoccerSimulation 2DLeague

[2023]

[EMPEROR Soccer Simulation 2D Team Description Paper 2023](#) This Team Description Paper introduces the overview of recent works done in EMPEROR team. Recently we have been working on several effective algorithms for optimizing different actions. Some of these actions which are presented later are through pass which is important for better team performance, defending strategy that has the most effect on the result of a game, and decision making that chooses the best action for the situation.

Fathi, E., Mazloun, S.: EMPEROR. RoboCup 2023 Symposium and Competitions. France (2023).

PROJECTS

[02/10/2023 – 01/02/2024]

New observation noise in RoboCup soccer simulation server The purpose of this proposal is to introduce a realistic noise model that can utilize real robot technology.

In the 2D simulator, the quantization error model has been applied to the observation noise from the beginning. However, this model is quite artificial and cannot be said to reproduce real-world noise. To make matters worse, methods that estimate the noise range by using the inverse function of quantization are rampant. This problem hinders the application of localization techniques used in the real world. Therefore, we propose introducing noise that follows a Gaussian distribution so that it is close to real-world noise. This will enable future expansion to include not only random errors but also systematic errors.

project: <https://github.com/rcsoccersim/rcssserver>

Link: https://docs.google.com/document/d/1Rbm7hQ-YxjPiiizrhLeu41eU2LflFnuU7dHSW_cVFMM/edit?tab=t.0#heading=h.9c1gaxtay1qw/

[11/12/2023 – 13/10/2024]

Cross Language Soccer Framework Cross-Language Soccer Framework is a project that aims to make RoboCup Soccer Simulation 2D more accessible to new teams by providing a framework that allows teams to write their code in any programming language they want.

Introduction: <https://clsframework.github.io/docs/introduction/>

Link: <https://github.com/CLSFramework>

[07/03/2024 – 15/05/2024]

2D Soccer Simulation Competition Technical Futsal Challenge A new environment presented for technical challenge in IranOpen 2024 international Symposium and Competitions.

Link: <https://github.com/RCSS-IR/futsal-challenge>

[11/03/2024 – 01/04/2024]

Teacher of exercise solving classes of soccer simulation 2D league workshop The Technical Committee of the 2D Football Simulator League, in cooperation with the National RoboCup Committee of Iran, has decided to hold a training course for the better access of all Iranian students to useful educational materials and to establish educational justice, so that the teams participating in the Iran Open 2024 tournament with strength Enter more competitions that I had the opportunity to participate in this workshop as a teacher of problem-solving classes. This course includes Computer basics, Algorithms and programming basics, the basics of 2D football simulation, BaseAgent training, and artificial intelligence training.

Catalog: <https://workshop.rcss.ir/img/catalog/catalog.pdf>

Classes and problem-solving classes: <https://workshop.rcss.ir/recorded-class>

Link: <https://workshop.rcss.ir/>

HONOURS AND AWARDS

[07/01/2023] Iran's National Elites Foundation

Considered as Member of the National Elite Foundation Certificate 1: https://www.linkedin.com/in/erfan-fathi-6466921bb/details/certifications/98287490/multiple-media-viewer?profileId=ACoAADMulhYBKq_-GqFmYClO0kyZJ9I9Vw-PnyM&treasuryMediaId=1715969306980&type=IMAGE&lipi=urn%3Ali%3Apage%3Ad_flagship3_profile_view_base_certifications_details%3BRJlhSVrpRymdrc5Y1hdNsg%3D%3D

Certificate 2: https://www.linkedin.com/in/erfan-fathi-6466921bb/details/certifications/98287490/multiple-media-viewer?profileId=ACoAADMulhYBKq_-GqFmYClO0kyZJ9I9Vw-PnyM&treasuryMediaId=1715969306981&type=IMAGE&lipi=urn%3Ali%3Apage%3Ad_flagship3_profile_view_base_certifications_details%3BRJlhSVrpRymdrc5Y1hdNsg%3D%3D

Certificate 2: https://www.linkedin.com/in/erfan-fathi-6466921bb/details/certifications/98287490/multiple-media-viewer?profileId=ACoAADMulhYBKq_-GqFmYClO0kyZJ9I9Vw-PnyM&treasuryMediaId=1715969306981&type=IMAGE&lipi=urn%3Ali%3Apage%3Ad_flagship3_profile_view_base_certifications_details%3BRJlhSVrpRymdrc5Y1hdNsg%3D%3D

Certificate 2: https://www.linkedin.com/in/erfan-fathi-6466921bb/details/certifications/98287490/multiple-media-viewer?profileId=ACoAADMulhYBKq_-GqFmYClO0kyZJ9I9Vw-PnyM&treasuryMediaId=1715969306981&type=IMAGE&lipi=urn%3Ali%3Apage%3Ad_flagship3_profile_view_base_certifications_details%3BRJlhSVrpRymdrc5Y1hdNsg%3D%3D

[16/01/2023] RoboCup Federation

First place of soccer simulation 2d starter-challenge RoboCup 2023 RoboCup is an international robotics competition that focuses on promoting research and development in the field of autonomous robots. The competition aims to advance the state of the art in robotics and artificial intelligence by challenging teams to develop robots capable of playing soccer, rescue, and other tasks against other teams in a real-world or simulated environment.

RoboCup Soccer Simulation 2D is a league in the RoboCup competition that focuses on developing autonomous soccer-playing agents. The goal of the league is to develop intelligent agents that can play soccer in a simulated environment. The agents must be able to perceive the game state, make decisions based on that information, and execute actions to play the game effectively.

Certificate: https://www.linkedin.com/in/erfan-fathi-6466921bb/details/certifications/1705174549476/single-media-viewer?type=IMAGE&profileId=ACoAADMulhYBKq_-GqFmYClO0kyZJ9I9Vw-PnyM&lipi=urn%3Ali%3Apage%3Ad_flagship3_profile_view_base_certifications_details%3BRJlhSVrpRymdrc5Y1hdNsg%3D%3D

[01/11/2023] Safir Language Academy

Advanced level of English language Certificate certificate: https://www.linkedin.com/in/erfan-fathi-6466921bb/details/certifications/1706477065228/single-media-viewer?type=IMAGE&profileId=ACoAADMulhYBKq_-GqFmYClO0kyZJ9I9Vw-PnyM&lipi=urn%3Ali%3Apage%3Ad_flagship3_profile_view_base_certifications_details%3Bu7W%2FiXm6R%2BeatmdCgY%2B5hQ%3D%3D

[14/04/2024] Iran National RoboCup Committee

Technical committee of soccer simulation 2d starter league IranOpen 2024 Certificate: https://media.licdn.com/dms/image/v2/D4D2DAQHTkQshe6JoMw/profile-treasury-image-shrink_160_160/profile-treasury-image-shrink_160_160/0/1715969637946?e=1729893600&v=beta&t=OcSL5JPi52EXUU8oBXF8reIW53Vkp6M939fjJPcmV3U

[14/04/2024] IranOpen International Symposium and Competitions

Participation of soccer simulation 2d league IranOpen 2024 Certificate: https://www.linkedin.com/in/erfan-fathi-6466921bb/details/certifications/1715969912729/single-media-viewer?type=IMAGE&profileId=ACoAADMulhYBKq_-GqFmYClO0kyZJ9I9Vw-PnyM&lipi=urn%3Ali%3Apage%3Ad_flagship3_profile_view_base_certifications_details%3Bu7W%2FiXm6R%2BeatmdCgY%2B5hQ%3D%3D

[14/04/2024] IranOpen International Symposium and Competitions

First place of soccer simulation 2d starter IranOpen 2024 Certificate of participation in team: https://www.linkedin.com/in/erfan-fathi-6466921bb/details/certifications/130063288/multiple-media-viewer?profileId=ACoAADMulhYBKq_-GqFmYClO0kyZJ9I9Vw-PnyM&treasuryMediaId=1715969498460&type=IMAGE&lipi=urn%3Ali%3Apage%3Ad_flagship3_profile_view_base_certifications_details%3BIXomo%2BXRtjiEu5IP0rPIFQ%3D%3D
Certificate of award: https://www.linkedin.com/in/erfan-fathi-6466921bb/details/certifications/130063288/multiple-media-viewer?profileId=ACoAADMulhYBKq_-GqFmYClO0kyZJ9I9Vw-PnyM&treasuryMediaId=1715969498461&type=IMAGE&lipi=urn%3Ali%3Apage%3Ad_flagship3_profile_view_base_certifications_details%3BIXomo%2BXRtjiEu5IP0rPIFQ%3D%3D

[22/08/2024] IELTS Official

IELTS Certificate: https://www.linkedin.com/in/erfan-fathi-6466921bb/details/certifications/1725479984444/single-media-viewer?type=IMAGE&profileId=ACoAADMulhYBKq_-GqFmYClO0kyZJ9I9Vw-PnyM&lipi=urn%3Ali%3Apage%3Ad_flagship3_profile_view_base_certifications_details%3BUixTj5AnSkaCnVh1qN5%2FPg%3D%3D

Credential ID: 24IR502813FATE026A

[14/04/2023] IranOpen International Symposium and Competitions

First place of soccer simulation 2d-starter IranOpen 2023 Certificate: https://www.linkedin.com/in/erfan-fathi-6466921bb/details/certifications/1705175345255/single-media-viewer?type=IMAGE&profileId=ACoAADMulhYBKq_-GqFmYClO0kyZJ9I9Vw-PnyM&lipi=urn%3Ali%3Apage%3Ad_flagship3_profile_view_base_certifications_details%3B2y3F%2B1koRCa9r3JDzDpwCQ%3D%3D

[14/04/2023] IranOpen International Symposium and Competitions

Participation Certificate of soccer simulation 2d IranOpen 2023 Certificate: https://www.linkedin.com/in/erfan-fathi-6466921bb/details/certifications/1705175925928/single-media-viewer?type=IMAGE&profileId=ACoAADMulhYBKq_-GqFmYClO0kyZJ9I9Vw-PnyM&lipi=urn%3Ali%3Apage%3Ad_flagship3_profile_view_base_certifications_details%3B2y3F%2B1koRCa9r3JDzDpwCQ%3D%3D

[14/04/2023] IranOpen International Symposium and Competitions

Participation certificate of soccer simulation 2d-starter IranOpen 2023 Certificate: https://www.linkedin.com/in/erfan-fathi-6466921bb/details/certifications/1705176275886/single-media-viewer?type=IMAGE&profileId=ACoAADMulhYBKq_-GqFmYClO0kyZJ9I9Vw-PnyM&lipi=urn%3Ali%3Apage%3Ad_flagship3_profile_view_base_certifications_details%3B2y3F%2B1koRCa9r3JDzDpwCQ%3D%3D

[14/04/2022] IranOpen International Symposium and Competitions

Participation certificate of soccer simulation 2d-starter IranOpen 2022 Certificate: https://www.linkedin.com/in/erfan-fathi-6466921bb/details/certifications/1705176118403/single-media-viewer?type=IMAGE&profileId=ACoAADMulhYBKq_-GqFmYClO0kyZJ9I9Vw-PnyM&lipi=urn%3Ali%3Apage%3Ad_flagship3_profile_view_base_certifications_details%3B2y3F%2B1koRCa9r3JDzDpwCQ%3D%3D

[01/01/2019] Iran Technical & Vocational Training

Ability to make simple electronic circuits Certificate: https://www.linkedin.com/in/erfan-fathi-6466921bb/details/certifications/1705480666336/single-media-viewer?type=IMAGE&profileId=ACoAADMulhYBKq_-GqFmYClO0kyZJ9I9Vw-PnyM&lipi=urn%3Ali%3Apage%3Ad_flagship3_profile_view_base_certifications_details%3B2y3F%2B1koRCa9r3JDzDpwCQ%3D%3D

[10/2020] Ghazal Javan Publications (Pearson in Iran)

B2-C1 English language certified by Topnotch course (ghazal javan) Certificate: https://www.linkedin.com/in/erfan-fathi-6466921bb/details/certifications/1705175744886/single-media-viewer?type=IMAGE&profileId=ACoAADMulhYBKq_-GqFmYClO0kyZJ9I9Vw-PnyM&lipi=urn%3Ali%3Apage%3Ad_flagship3_profile_view_base_certifications_details%3B2y3F%2B1koRCa9r3JDzDpwCQ%3D%3D

[2021] Mathematics home of Tehran

The winner of the bronze medal of the great Andishmand Prize of Tehran Math House Certificate: https://www.linkedin.com/in/erfan-fathi-6466921bb/details/certifications/1705479539906/single-media-viewer?type=IMAGE&profileId=ACoAADMulhYBKq_-GqFmYClO0kyZJ9I9Vw-PnyM&lipi=urn%3Ali%3Apage%3Ad_flagship3_profile_view_base_certifications_details%3B2y3F%2B1koRCa9r3JDzDpwCQ%3D%3D

[2022] Mathematics home of Tehran

Winner of the silver medal of the gold finder test of the Tehran Math House Certificate: https://www.linkedin.com/in/erfan-fathi-6466921bb/details/certifications/1705479608806/single-media-viewer?type=IMAGE&profileId=ACoAADMulhYBKq_-GqFmYClO0kyZJ9I9Vw-PnyM&lipi=urn%3Ali%3Apage%3Ad_flagship3_profile_view_base_certifications_details%3B2y3F%2B1koRCa9r3JDzDpwCQ%3D%3D

[03/11/2024] Research institutes of Tehran and Ministry of Education and Culture

First place of artificial intelligence-based programming in Tehran province pending for certificate...

[13/12/2022] Ministry of Education

Top rank of Tehran province in the English language field in The 8th Khwarazmi Youth Festival

Link: <https://drive.google.com/file/d/18S5UQn4xJ-hgQf6DaFkfiQ7sY-k6DdHA/view?usp=sharing>

[13/12/2022] Ministry of Education

Top rank of Tehran province in the Mathematics field in The 8th Khwarazmi Youth Festival

Link: https://drive.google.com/file/d/1KCaca9vqHWayMQHYegoDauvpNRK4YICZ/view?usp=drive_link

[10/04/2021] Ministry of Education

The first regional place of Tehran in the field of visual arts cultural competitions

Link: https://drive.google.com/file/d/1wHuGuSCHMyHjQa-x1BnZ9HQgPnCh6syD/view?usp=drive_link

[19/11/2022] Ministry of Education

1st place in the 6th district of Tehran in the field of volleyball

Link: https://drive.google.com/file/d/1wzvcSTNU6f7EGT4nX7XNUjOPhRWszR06/view?usp=drive_link

[11/10/2019] Cultural and artistic organization of Tehran Municipality

1st place pf Bahman cultural center mini volleyball festival competitions

Link: https://drive.google.com/file/d/1V6hoj1G9oHXTq3of6w8Qr2R0FzMR-rh3/view?usp=drive_link

[23/10/2021] Tehran Province Volleyball Board

1st place in the volleyball tournament of the southeast youth league of Tehran province

Link: <https://drive.google.com/file/d/1GtZP5FioLaTVtuGwAliXAn5xujzSLHJk/view?usp=sharing>

[2020] Department of sports and youth of Ray city

The first place in the field of volleyball in the volleyball championship of Ray city

Link: https://drive.google.com/file/d/1lwzPr_ZUCkZU1Zw8VOq7Q0sEoPtcK4cO/view?usp=sharing

[2022] Mandegar Alborz high school

The third place in the football field of the intramural Olympiad of Alborz High School

Link: https://drive.google.com/file/d/1ZiLbH2pMIXqSIVqkmcml1nBbU3rp-nXv/view?usp=drive_link

[2022] Mandegar Alborz high school

The first place in the volleyball field of the intramural Olympiad of Mandegar Alborz High School

Link: https://drive.google.com/file/d/1Pw_xffklrPalq1Y_1tj_O7cpzwwKNiD/view?usp=sharing

[06/09/2019] Cultural and artistic organization of Tehran Municipality

First place in the volleyball field of Bahman cultural center Mini Volleyball Championship

Link: <https://drive.google.com/file/d/12sKeAs0NPsBJFaQTnZjkPlpFZjzhJC8S/view?usp=sharing>

[31/01/2019] Youth Sports Department of Tehran Province

3rd place in the Championship of Tehran province Pakdasht in the field of volleyball

Link: <https://drive.google.com/file/d/1L9tGIXWOR6K6VELkb0O0dGHkSYnpWs8M/view?usp=sharing>

[05/09/2020] Youth Sports Department of Tehran Province

1st place in the Championship of Tehran Pakdasht province in the field of volleyball

Link: <https://drive.google.com/file/d/1NiUU7ySt16mMzho6ZbWMuW07BGx7Pqbq/view?usp=sharing>

[15/12/2020] Tehran province volleyball academies

1st place in mini volleyball competitions of academies of Tehran province

Link: https://drive.google.com/file/d/1ps4jIBldgT8RFPe43xUzlp97LZ3KogH/view?usp=drive_link

[10/06/2021] Southeast Tehran Volleyball Board

1st place in the field of volleyball in the mini-volleyball competition of the Tehran League

Link: <https://drive.google.com/file/d/16F2JhNw6cbNRJTPz0oFbxBQZMyXwQ7LP/view?usp=sharing>

[2019] Volleyball Federation of the Islamic Republic of Iran

Certificate of completion of the preparatory volleyball training course of Bahman cultural center Specialized Volleyball Academy

Link: <https://drive.google.com/file/d/1zZ7qOfDsCABqdV0G2Fyhy7baazAkxrgV/view?usp=sharing>