

Erfan Jazeb Nikoo

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I am **Erfan Jazeb Nikoo**, a researcher, programmer, Robotics expert and an Electronic Engineer who likes programming and embedded system's circuit designing.

I have experience in mobile applications development with **Android** and **Flutter**.

I have conducted research on embedded systems and Artificial Intelligence in several research activities at Mechatronics Research Laboratory as a Senior Researcher for 7 years. I focused on machine learning, Artificial Intelligence, Multi-Agent systems and autonomous agent using **Java** and **C/C++** languages on a different branch of Robotics fields. My scientific contribution led to achieving worldwide ranks in RoboCup competitions.

Technical Skills

Likes: flutter dart android java c++ robotics machine-learning artificial-intelligence tensorflow arm

Experience

Senior Software Developer – Koozeh institute culture & art Dec 2017 → Current
flutter, dart, material-design

Design and development of a multimedia magazine reader mobile application using Flutter framework in Dart language, and Java backend. Koozeh supports video, audio, and image as content. It also has features like categorization, subscription, e-payment, social, and personal profile.

Team Leader – Prof. Hessabi Robotic Research Center Oct 2015 → Sep 2017
c++11, ros, mavlink, c

I was the leader of Guilano autonomous multi-rotor robot team. A multi-rotor or multi-copter is a rotorcraft with more than two rotors. An advantage of multirotor aircraft is the simpler rotor mechanics required for flight control and make all of the behaviors autonomously. We designed, optimized and manufactured hexacopter drone with a vision based AI and online 3D mapping using the C++ programming language on ROS platform.

Senior Software Developer – Gilan HVAC House Nov 2016 → May 2017
wordpress

I designed and developed "yestco.com" and "gilanhvachouse.com" websites for Gilan HVAC House company. HVAC is short for heating, ventilation, and air conditioning. The system is used to provide heating and cooling services to buildings. HVAC systems have become the required industry standard for construction of new buildings.

Android Developer – Binogoo Jan 2017 → Apr 2017
android, android-studio

Binogoo is an information system and social app that includes mobile clients, web clients and a web dashboard for addressing issues in urban environments and organizations.

Senior Researcher – SYNTECH Technology and Innovation Center Jan 2012 → Aug 2016
java, simulation, multi-agent, artificial-intelligence, robocup

I was a member of the MRL rescue agent simulation team. I worked on autonomous agents and multi-agent distributed systems for fire brigades and ambulance team searching and decision making in communication less situation and infrastructure improvement using Java programming language. The Agent Simulation competition involves primarily evaluating the performance of agent teams on different maps of the RoboCup Rescue Agent Simulation (RCRS) platform, a comprehensive simulation environment for research in disaster response management. Specifically, This competition involves evaluating the effectiveness of Ambulances, Police Forces, and Fire Brigades agents on rescuing civilians and extinguishing fires in cities where an earthquake has just happened.

Founder and CEO – Rayan Samaneh Asr Nikoo Sep 2014 → Dec 2015
asp.net, mysql, c#

Rayan Samaneh is a limited liability company found in 2014 which worked on producing software and automation. Design, develop and support of web-based archive automation of Guilan office of schools' renovation, development, and mobilization was one of the projects of this company.

High School Teacher – Farzanegan 5 High School
c, avr, robotics, artificial-intelligence, robocup

Sep 2012 → Dec 2013

I was the team leader and teacher of C programming for embedded system and RoboCup junior robots circuit designing. We designed and built RoboCup junior rescue robot by AVR microcontroller programmed by "CodeVision AVR" with C programming language

High School Teacher – Allameh Helli High School
c++, simulation, multi-agent, artificial-intelligence, robocup

Jul 2013 → Sep 2013

I was the team leader and teacher of C++ programming and RoboCup soccer 2D simulation's AI and autonomous Multi-Agent systems

Senior Researcher – SYNTECH Technology and Innovation Center
c++, c++11, qt, artificial-intelligence, multi-agent, netbeans, robocup

Aug 2012 → Aug 2013

I was a member of the Artificial Intelligence group of MRL middle-size soccer robots team. I worked on offensive strategy, attacker and halfback roles using the C++ programming language. In RoboCup MSL teams of five fully autonomous robots play soccer with a regular size FIFA soccer ball. Teams are free to design their own hardware but all sensors have to be on-board and there are a maximum size and weight for the robots. The research focus is on mechatronics design, control, and multi-agent cooperation at plan and perception levels.

Senior Researcher – Karaj Robotics Research Center
c, avr, robotics, artificial-intelligence, robocup

Sep 2011 → Sep 2012

I was the leader of the electronic group of Phoenix autonomous underwater vehicles team (Phoenix).

Researcher – SYNTECH Technology and Innovation Center
electronics, arm, arm7, cortex-m3, can, protocols, driver, robocup, keil

Sep 2010 → Oct 2011

I was a member of the electronic group of MRL middle size soccer robots team. I designed, optimized and manufactured Touchscreen graphical data monitor, debugger and Logger for CAN protocol based on an ARM-microprocessor programmed by "Keil uVision" with C/C++ programming language which designed for an autonomous middle size robot.

Junior Researcher – Mirza Koochack Khan High School
c, avr, robocup, electronics

Sep 2007 → Sep 2008

I was a member of Spinas junior soccer team. We designed and built different parts of Junior Soccer robots with AVR microcontroller based circuits programmed by "CodeVision AVR" with the C programming language.

Junior Researcher – Mirza Koochack Khan High School
c++, simulation, robocup, artificial-intelligence, multi-agent

Sep 2007 → Sep 2008

I was a member of Marlik soccer 2D simulation team. I worked on offensive strategy, shoot and cross behaviors using the C++ programming language.

Junior Researcher – Mirza Koochack Khan High School
c, avr, robocup, electronics

Sep 2003 → Sep 2007

I was a member of the Hidden extra junior pathfinder robot team. We built an AVR microcontroller based robot and programmed by "CodeVision AVR" with C programming language. The line following robot is one of the autonomous robots. That detects and follows a line drawn on the area. The line is indicated by a black line on a white surface or white line on a black surface. This robot must be sensed the color of the line.

Education

BSc. Electronics Engineering – Islamic Azad University
java, c++, c++11, c, robotics, electronics, simulation, artificial-intelligence

Sep 2014 → Aug 2017

GPA: 3.25 out of 4.0

I studied in Lahijan and Qazvin branch of Islamic Azad University and were a part of MRL's RoboCup Rescue Simulation team.

Diploma of Mathematics and Physics – SAMPAD (NODET)
c, c++, avr, simulation, artificial-intelligence

2005 → 2008

GPA: 3.2 out of 4.0

I studied at Mirza Koochak high school under the supervision of national organization for development of exceptional talents (NODET)

Certifications

Participated at IranOpen UAV - Outdoor league, IranOpen RoboCup 2017 Tehran - Iran –
<https://en.wikipedia.org/wiki/IranOpen>
c++11, ros, mavlink, c

Apr 2017 → Oct 2017

1st Place at RoboCup competitions rescue agent simulation league - Leipzig, Germany – http://wiki.robocup.org/Rescue_Simulation_League#RoboCup_Champions java, simulation, multi-agent, artificial-intelligence, robocup	2016 → Sep 2016
1st Place at RoboCup competitions rescue agent simulation league technical challenge - Leipzig, Germany – http://wiki.robocup.org/Rescue_Simulation_League#RoboCup_Champions java, simulation, multi-agent, artificial-intelligence, robocup	2016 → Sep 2016
1st Place at RoboCup competitions rescue simulation league infrastructure challenge - Leipzig, Germany – http://wiki.robocup.org/Rescue_Simulation_League#RoboCup_Champions java, simulation, multi-agent, artificial-intelligence, robocup	2016 → Sep 2016
Participated at Rescue agent simulation league, RoboCup 2016, Leipzig, Germany – http://wiki.robocup.org/Rescue_Simulation_League#RoboCup_Champions java, simulation, multi-agent, artificial-intelligence, robocup	2016 → Sep 2016
1st Place at Iran Open RoboCup competitions rescue agent simulation league - Tehran, Iran – http://2015.iranopen.ir/en-gb/leagues/robocuprescue/rescueagentsimulationleague.aspx java, simulation, multi-agent, artificial-intelligence, robocup	Apr 2015 → Sep 2016
Participated at rescue agent simulation league, RoboCup IranOpen 2015, Tehran, Iran – http://2015.iranopen.ir/en-gb/leagues/robocuprescue/rescueagentsimulationleague.aspx java, simulation, multi-agent, artificial-intelligence, robocup	Apr 2015 → Sep 2016
1st Place at RoboCup competitions rescue agent simulation league's best presentation - Hefei, China – http://wiki.robocup.org/Rescue_Simulation_League#RoboCup_Champions java, simulation, multi-agent, artificial-intelligence, robocup	2015 → Sep 2016
2nd Place at RoboCup competitions rescue agent simulation league - Hefei, China – http://wiki.robocup.org/Rescue_Simulation_League#RoboCup_Champions java, simulation, multi-agent, artificial-intelligence, robocup	2015 → Sep 2016
1st Place at RoboCup competitions rescue agent simulation league multi agent challenge - Mexico City, Mexico – http://wiki.robocup.org/Rescue_Simulation_League#RoboCup_Champions java, simulation, multi-agent, artificial-intelligence, robocup	Jun 2012 → Sep 2016
Participated at rescue agent simulation league, RoboCup 2012, Mexico City, Mexico – http://wiki.robocup.org/Rescue_Simulation_League#RoboCup_Champions java, simulation, multi-agent, artificial-intelligence, robocup	Jun 2012 → Sep 2016
Participated at rescue agent simulation league, RoboCup IranOpen 2012, Tehran, Iran – https://en.wikipedia.org/wiki/IranOpen java, simulation, multi-agent, artificial-intelligence, robocup	Apr 2012 → Sep 2016
Participated in middle size league, RoboCup IranOpen 2013, Tehran, Iran – https://en.wikipedia.org/wiki/IranOpen c++, c++11, qt, artificial-intelligence, multi-agent, netbeans, robocup	Apr 2013 → Sep 2013
Participated at middle size league, RoboCup 2011, Istanbul, Turkey – http://wiki.robocup.org/Results_World_Championships_2011:_Istanbul,_Turkey#Results electronics, arm, arm7, cortex-m3, can, protocols, driver, robocup, keil	Jul 2011 → Nov 2011
1st Place at Iran Open RoboCup 2011 competitions middle size league - Tehran, Iran – https://en.wikipedia.org/wiki/IranOpen electronics, arm, arm7, cortex-m3, can, protocols, driver, robocup, keil	Apr 2011 → Nov 2011
Participated in middle size league, RoboCup IranOpen 2011, Tehran, Iran – https://en.wikipedia.org/wiki/IranOpen electronics, arm, arm7, cortex-m3, can, protocols, driver, robocup, keil	Apr 2011 → Nov 2011
Participated at junior soccer league, IranOpen RoboCup 2008, Qazvin, Iran – https://en.wikipedia.org/wiki/IranOpen	Apr 2008 → Oct 2008
Participated at soccer 2D simulation league, IranOpen RoboCup 2008, Qazvin, Iran – https://en.wikipedia.org/wiki/IranOpen c++, simulation, robocup, artificial-intelligence, multi-agent	Apr 2008 → Oct 2008

Participated at extra junior pathfinder league, IranOpen RoboCup 2007, Tehran, Iran –
<https://en.wikipedia.org/wiki/IranOpen>
c, avr, electronics

Apr 2007 → Oct 2007

Projects & Interests

erfanjazebnikoo/scaffold_factory – https://github.com/erfanjazebnikoo/scaffold_factory

Oct 2018 → Nov 2018

A Flutter plugin to build and customize the Flutter's scaffold widget with simple and flexible configurations.

erfanjazebnikoo/internet_download_manager –
https://github.com/erfanjazebnikoo/internet_download_manager

Nov 2017 → Dec 2017

Internet Download Manager for Android devices

erfanjazebnikoo/aurora_gui – https://github.com/erfanjazebnikoo/aurora_gui

Feb 2017 → Oct 2017

GUI application of Aurora project. Aurora is an program of autonomous multirotor robots based on APM autopilot. We use ROS platform and Mavlink protocol for connection between program and robot.

erfanjazebnikoo/aurora_core – https://github.com/erfanjazebnikoo/aurora_core
c++11, ros, mavlink, c

Feb 2017 → Oct 2017

Core program of autonomous multi rotor robots based on APM autopilot. We use ROS platform and Mavlink protocol for connection between program and robot.

erfanjazebnikoo/optimization_nanofilm_thickness_using_ga –
https://github.com/erfanjazebnikoo/optimization_nanofilm_thickness_using_ga

Feb 2016 → Nov 2016

Optimization of nanofilms thickness using a Genetic Algorithm (GA)

erfanjazebnikoo/Quala-PID-Pathfinder – <https://github.com/erfanjazebnikoo/Quala-PID-Pathfinder>

Aug 2015 → Oct 2016

Operating the Pathfinder robot with feedback from sensors and using PID control

erfanjazebnikoo/Multi-Task-Monitoring-and-Logger-System –
<https://github.com/erfanjazebnikoo/Multi-Task-Monitoring-and-Logger-System>

Sep 2010 → Nov 2011

Graphical data monitoring, Logger and debugger for CAN protocol based on ARM microprocessor

Apps & Software

Koozeh – <https://play.google.com/store/apps/details?id=bina.ir.koozeh&hl=en>
flutter, dart, material-design, android, ios

Dec 2017

The First Persian Multimedia Magazine Stand

اولین گروه مجلات چند رسانه ای الکترونیک فارسی

Tools

Favorite Editor: IntelliJ IDEA, Netbeans