CAREER PROFILE

I'm an Electrical Engineer with a strong self-taught background in software development, eager to work in machine learning, data science, full-stack development, and robotics. I possess strong problem-solving skills, a fast-learning mindset, and valuable teamwork experience from my role as the Lead AI and Robotics Instructor. I've also developed solid programming expertise through contributing to open-source projects. With knowledge of Python, C++, C, HTML, CSS, and JavaScript, I'm excited to join a team where I can apply my skills and continue learning from others.

PROFESSIONAL EXPERIENCE

Lead AI and Robotics Instructor   July 2021 - June 2024
AERT Research Team

- Leading the AI and robotics department.
- Teaching AI and robotics concepts to students using Soccer Simulation2D.
- Developing and maintaining the team's codebase.

IT Specialist   August 2023 - February 2024
Nimaad Cloud Processing, Tehran

- Managed the company's cloud infrastructure.
- Provided technical support to the team.
- Confitured and maintained the company's servers.
- Developed and implemented Ansible scripts to automate the configuration of cloud servers based on customer orders.
- Set up and configured company computers, including Windows installation and software setup for optimal performance and security.

Technical Committee Member   May 2022 - Present
IranOpen Robotics Competition

- Contributed to the development of a **workshop.rcss.ir** aimed at helping individuals in Iran learn about soccer simulation 2D leauge of robocup.
- Assisted in organizing the 2D Soccer Simulation League Competition.
- Created instructional videos and written materials to enhance the learning experience for students in soccer simulation.
- Assisted in creating the **StarterAgent2D-V2** base, serving as a foundational base for students to participate in the 2D Soccer Simulation League.

Software Developer (Self-Taught)   July 2021 - Present
Academic and Independent Work

- Contributed to the development of **CLSFramework**, a 2D soccer simulation framework that allows participants to compete using various programming languages beyond C++.
- Built a **Java-based social media application** resembling Twitter as an object-oriented programming project for student engagement and learning.
- Created an **oscilloscope simulation function** for an electrical circuits course project, enhancing student comprehension of waveform behavior.
- Collaborated on the **PCGPT project**, which integrates Procedural Content Generation Reinforcement Learning (PCGRL) and Discrete Transformers to advance automated game content generation, promoting dynamic gameplay.
- Designed and implemented a **calculator in Assembly language** on a PIC32 microcontroller for a Computer & Microprocessor Architecture course.
- Developed a **signal processing system** on the Zynq 7000 platform. Generated waveforms in Programmable Logic (PL), unscrambled and analyzed signals with FFT, and displayed both the signal and frequency spectrum via HDMI.

REWARDS AND ACHIEVEMENTS

- 2024 - 2nd Place in RoboCup, Soccer Simulation 2D League, Hanover, Netherlands
- 2024 - 1st Place in IranOpen RoboCup Competition, Soccer Simulation 2D League, Tehran , Iran
- 2023 - 1st Place in IranOpen RoboCup Competition, Soccer Simulation 2D League, Tehran , Iran
- 2022 - 3rd Place in RoboCup, Soccer Simulation 2D League - Coopeartion Challange, Bangkok , Thailand
- 2021 - 92nd Place in National Universities Entrance Exams out of +165,000 undergraduate applicants, Tehran, Iran
- 2019 - 3rd Place in One Idea One world - Biomedical Engineering, Tehran, Iran

PUBLICATIONS

- Pyrus 2023 Team Description Paper
Reza Aghayari, Sadra Khanjari
Iran Open

Sadra Khanjari
Software Developer
Electrical Engineer

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EDUCATION

BSc in Electrical Engineering
Sharif University of Technology, Tehran
2021 - Present

High School Diploma in Mathematics and Physics
2018 - 2021

LANGUAGES

English (Advanced (C1))

Persian (Native)

INTERESTS

Software Development

Artificial Intelligence

Machine Learning

Dev Ops

Embedded Systems

Robotics

- Tehran2D Team Description Paper

Sadra Khanjari
RoboCup

- Observation Denoising in CYRUS Soccer Simulation 2D Team For RoboCup 2024

Nader Zare, Aref Sayareh, Sadra Khanjari, Arad Firouzkouhi
RoboCup

📘 KEY PROJECTS

I have been involved in various projects, focusing on backend development, AI systems, and embedded software.

workshop.rcss.ir - A platform for the Iranian RoboCup community to learn about Soccer Simulation 2D

CLSframework - A gRPC/thrift based framework for Soccer Simulation 2D teams

StarterAgent2D-V2 Base - A base code for students in Soccer Simulation 2D teams

🎓 CERTIFICATIONS

Python for Everybody Coursera	- October 2023
Young Entrepreneurs Course Industrial Management Institute	- June 2022
Technical Committee Certification Iran Open	- May 2023
Technical Committee Certification Iran Open	- May 2024
Date and Time in Python 365 Data Science	- July 2024
Data Cleaning and Preprocessing with pandas 365 Data Science	- August 2024
Human resources comprehensive course Industrial Management Institute	- September 2024

🔧 SKILLS & PROFICIENCY

Programming Languages	Python, C++, C, CUDA, Java, CSS, HTML, Javascript , Verilog , Assembely
Data Base	MySQL
Artificial Intelligent Concepts	Deep Learning, Deep Reinforcement Learning
Machine Learning Frameworks	Keras, Tensorflow, Stable Baselines3, Pandas, NumPy
OS	Ubuntu, Windows
Technologies and Frameworks	Django, Git, GitLAB, Docker, Svelte, RabbitMQ, Ansible, Arduino, Raspberry pi
Integrated development environment (IDE)	VSCode, Pycharm, CLion, Qt Creator, MATLAB