Hossein Farahnaki

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📅 June 14, 2004 🔗 Personal Website

👤 PROFILE

- "I'm Hossein Farahnaki, an Electrical Engineering student at Sharif University of Technology with a passion for technology, problem-solving, and continuous growth. I have strong experience in programming with Python, C++, and Java. Beyond my technical skills, I've earned national medals in the Astronomy Olympiad and now teach and mentor students in this field. I'm also an active trader in the forex and cryptocurrency markets, applying analytical thinking and risk management. I'm always looking for new challenges to expand my knowledge and push my limits."

🎓 EDUCATION

Bachelor of Electrical Engineering,   2022 – present
Sharif University of Technology ↗
- Engaged in research and projects with professors. Vice Secretary of the Student Council, representing student interests. Teaching Assistant for multiple courses, supporting students and course management.

Mathematics and Physics Diploma,   2019 – 2022
Allameh Helli 1 High School ↗
- Earned my Mathematics and Physics Diploma. Participated in the Astronomy Olympiad. This was one of the best and most rewarding times of my life.

🧠 SKILLS

Data Analysis	Python Programming	C++ Programming	Java Programming
Pspice & LTspice	Matlab/Simulink	Computer Skills	Adobe Photoshop
Leadership	Ability to Multitask	Ability to Work in a Team	Adaptability

💼 PROFESSIONAL EXPERIENCE

Astronomy Olympiad teacher, *Helli 1, Allameh*   2022 – present
Tabatabai, Salam, Alborz & Farzanegan High School
- Teaching topics such as astrophysics, data analysis, celestial mechanics, and spherical geometry, which are part of the Astronomy Olympiad syllabus, at various schools. Additionally, I serve as an Olympiad curriculum consultant.

Software Developer For Swarm Drone Show,   2022 – 2024
IR MCI ↗
- The simulation project of several drones that write a certain text on the sky Using Python and C++ and simulating with Blender.

Frontend Developer, *Troodon Co.*   2023 – 2024
- Contributed to launching a website integrating ChatGPT and AI technologies to provide high-quality responses from top AI solutions.

📂 PROJECTS

Polyp Detection Project with Deep Learning   2024 – present
- Worked with a dataset of 4,000 colon images to detect polyps with high accuracy using deep learning, focusing on data preprocessing, model training, and optimization

Arc Fault Detection System Using Optical Sensors   2024 – present
- Designed and tested an optical sensor system using photodiodes to detect electrical arcs in power boards, enhancing safety by enabling rapid response to prevent hazards in various conditions.

Machine Learning Model for EMG Signal Recognition   2024 – 2025
- Developed a model to classify hand movements from EMG signals using KNN, LDA, Random Forest, and SVM, showcasing expertise in signal processing and machine learning.

Jungle Marble Blast Game   2022
- In 2022, I simulated Jungle Marble Blast using C++. I focused on recreating the game's dynamic environment with advanced algorithms for physics and marble movements, enhancing my programming and problem-solving skills.

SnappFood Simulation Project   2023
- Developed a SnappFood simulation with Java, JSON, HTML, and CSS, featuring restaurant search, menu viewing, order placement, online payment, and route mapping akin to Google Maps (2023).

🎖 AWARDS

Silver Medal,   2021

Astronomy and Astrophysics Olympiad ⤢

- I won a silver medal in the Astronomy and Astrophysics Olympiad. This experience deepened my knowledge in celestial mechanics, stellar physics, and observational astronomy. Competing with top students from around the country enhanced my analytical and research skills.

Bronze Medal,   2020

Astronomy and Astrophysics Olympiad ⤢

- In addition to winning a silver medal, I had won a bronze medal the previous year.

Mathematics Competitions ⤢   2018

- I participated in the Kangaroo Math Competition and won a medal. Additionally, I regularly competed in the Math House competitions, where I earned various medals.

🎸 INTERESTS

Technology & Gadgets

- Exploring the latest technologies, including processor architectures, laptops, smartphones, cameras, and other cutting-edge gadgets.

Trading & Financial Market

- Active trading in forex and cryptocurrency markets, analyzing trends, and managing investments.

Teaching, Mentorship & Motivation

- Love teaching, mentoring, and consulting. Enjoy motivating and inspiring others, helping them grow, and boosting their confidence.