

MATIN NEMATI

Tehran, Iran

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Professional Summary

5+ years of experience in education, including teaching, academic advising, mentoring, and educational management.

1+ year of academic experience as a data scientist and data analyst.

Studied two fields: Electrical Engineering (Neuroscience) and Computer Science (Data Science & AI). Completed several graduate-level courses alongside the undergraduate curriculum, based on academic standing.

Interested in data analysis roles across different fields, with a focus on quality and precision of work.

Career Interests

Data Scientist | Data Analyst | Business Analyst | Financial Analyst | Research Assistant

Education

Isfahan University of Technology (IUT)

Sep. 2022 – Jul. 2026

B.Sc. in Electrical Engineering (Bioelectricity & Neuroscience)

Minor in Computer Science

GPA: 3.35 / 4.00 overall · 18.02 / 20 final year · 18.43 / 20 major

Skills

Programming: [Python](#) (NumPy, Pandas, Matplotlib, OOP), MATLAB, R

Data Analysis: Statistical Analysis (Hypothesis Testing, ANOVA, Regression, T-Test, ...), Data Cleaning, EDA, ...

Machine Learning: Supervised & Unsupervised Learning, Neural Networks, Regularization, ...

Databases: SQL (T-SQL), Data Warehouse

Business Intelligence: Power BI

Signal Processing: Digital Signal Processing, EEG, ECG, EMG, Biomedical Signals

Neuroscience: Neural Modeling, Systems and Computational Neuroscience

Simulation: PSpice, Proteus

Tools: Git, Microsoft Office Suite, $\LaTeX$

AI Tools: Hands-on experience with a range of AI tools, including LLM assistants, AI coding assistants, and AI-powered research and data analysis tools

Soft Skills

ISTJ personality, with interests in mountaineering, volleyball, and exploring deep and real-world problems. Also passionate about **Teaching** and knowledge sharing.

- Problem-Solving
- Analytical Thinking
- Attention to Detail
- Independent Research & Self-Learning

Professional & Teaching Experience

Data Scientist & Data Analyst (Academic)

1+ year

Academic experience outside industry

Applied statistical analysis, machine learning, and signal processing to real datasets, supported by a strong mathematical background. This work includes the projects listed under Research Experience & Projects.

Mathematics, Physics, Python & Artificial Intelligence Instructor

2020 – 2026

Taught and mentored more than 100 students while designing structured study plans and problem-solving strategies. Taught artificial intelligence courses at training institutes and centers (Tehran).

Programming & Artificial Intelligence Instructor

2026

Technical and vocational training institutes — Tehran

Teaching programming and artificial intelligence courses.

Educational Team Lead & Academic Advisor

2021 – 2025

Started as an academic advisor at [Heyva Group](#) in 2021, and later led multiple educational teams between 2023 and 2025, providing academic planning and student guidance.

Teaching Assistant (Python) & Programming Mentor

2022

Isfahan University of Technology

Teaching Assistant for undergraduate students, mentoring in programming, debugging, and problem-solving.

Certifications, Academic Background & Selected Coursework

For detailed information about my academic background, academic transcripts, certifications, and completed coursework, please visit [Academic Portfolio](#).

Research Interests

- Neuroscience (Clinical & Computational)
- Neuro & Biomedical Devices
- Emerging Technologies
- Statistical Inference
- Data Analysis
- Financial Markets
- Business Management & Organizational Leadership
- Financial Analysis

Research Experience & Projects

Quantum Phenomena in Biological Systems: Implications for Brain Function

B.Sc. Thesis – Fall 2025

Isfahan University of Technology

Conducted a systematic and critical review of theoretical models and experimental evidence investigating the possible role of quantum phenomena in the brain and nervous system, with emphasis on their biophysical feasibility and functional implications.

Human Activity Recognition

Spring 2026 · Python

Machine Learning course

Applied dimensionality reduction and unsupervised clustering (PCA, K-Means, GMM) to human activity data, then compared six classifiers tuned with grid search and cross-validation.

Tools: Jupyter, scikit-learn, pandas, matplotlib, seaborn

Sleep and Autonomic Nervous System Activity (HRV)

Spring 2026 · R

Statistical Analysis of Biomedical Data course

Modeled the relationship between sleep and autonomic activity using multiple linear regression with backward selection, assumption checking, and missing-data handling on multimodal data with mixed variable types.

Tools: R, tidyverse, car, lmtest

Speaker Recognition

Spring 2026 · MATLAB

Digital Signal Processing Lab

Built a speaker recognition pipeline with speech preprocessing, MFCC and pitch features, FFT and spectrogram analysis, and KNN and SVM classification.

Tools: MATLAB, Audio Toolbox, Signal Processing Toolbox, Statistics and Machine Learning Toolbox

EMG Signal Classification: Wrist vs. Arm

Fall 2024 · MATLAB

Biosignal Lab

Classified EMG signals using signal filtering, feature extraction, and a KNN classifier implemented from scratch, evaluated with cross-validation.

Tools: MATLAB, Signal Processing Toolbox, Statistics and Machine Learning Toolbox

Financial Tracker

Fall 2021 · Python

Fundamentals of Computer and Programming course

Developed a desktop financial tracking application with a Tkinter GUI, calendar-based date input, file handling, input validation, and exception handling.

Tools: Tkinter, tkcalendar, datetime

Selected projects only. Code and the full list are available in the [GitHub repository](#).

References

Dr. Sayed Jalal Zahabi

Assistant Professor, Department of Electrical and Computer Engineering

Isfahan University of Technology

Instructor of most of my undergraduate courses.

Links: [Google Scholar](#), [Faculty Profile](#)

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Dr. Zaker Hossein Firouzeh

Assistant Professor, Department of Electrical and Computer Engineering

Isfahan University of Technology

Supervisor of my B.Sc. thesis.

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