Sara Rostamidarounkola

M.Sc. of Artificial Intelligence and Robotics
University of Tehran, Tehran, Iran

☎ +98-9117784215
✉ sararostami.d98@gmail.com
🔗 Website
⊙ GitHub Profile
in LinkedIn Profile

EDUCATION

•**Master of Science in Artificial Intelligence and Robotics** *2021-24*
University of Tehran, Iran Grade: 19.12/20

•**Bachelor of Science in Computer Engineering** *2016-21*
Babol Noshirvani University of Technology, Iran Grade: 17.38/20

PUBLICATIONS

•**Investigating the Role of Expectation and Repetition in Visual Mismatch Negativity (vMMN)** *Upcoming*
Rostamidarounkola, S., Shafiei, F., Sima, S., Abolghasemi Dehaqani, M. Manuscript in preparation.

CONFERENCE PARTICIPATION

•**CuttingGardens Conference - Tehran Garden** *Oct 2023*
Convergent Technologies Research Center, University of Tehran, Iran
– Presentation on *Introduction to Python's MNE toolbox for EEG data analysis*

RESEARCH EXPERIENCE

•**Research Assistant** *Aug 2022 - Present*
Convergent Technologies Research Center, University of Tehran, Iran
– Part of the *Neural Adaptation* Project
– EEG data acquisition with 128-channel EEG cap
– Preprocessing EEG data using EEGLAB and FieldTrip
– Applying Univariate and Multivarite Analyses to preprocessed data

•**Research Intern** *Aug 2022 - Feb 2023*
Genzel lab, Donders institute for brain, cognition and behavior, Netherlands
– Part of the *Systems Consolidation During Sleep* Project
– Applied Data Preparation, Wrangling and Visualization techniques
– Applied ML algorithms to clean data for classification

TEACHING EXPERIENCE

•**Teaching Assistant, Computational Neuroscience Summer School** *Jun 2023 - Jul 2023*
Neuromatch Academay
– Mentored and assisted students in the computational neuroscience course
– Led interactive sessions and discussions to enhance understanding of course material

•**Teaching Assistant for Master's Courses** *Jan 2023 - July 2023*
University of Tehran, Iran
– Statistical Inference
– Introduction to Cognitive Neuroscience

SELECTED ACADEMIC PROJECTS

•**Investigating the Role of Repetition and Expectation in vMMN** *link*
Master's Thesis, University of Tehran, Iran Fall 2024
– Collecting 128-channel EEG Data from 15 subjects
– Preprocessing EEG data with EEGLAB
– Applying Multivariate Pattern Analysis (MVPA) method

•**Investigating the Robustness and Interpretability of a Deep Learning Model** *link, link*
Trustworthy AI course, University of Tehran, Iran Spring 2023
– Explored model robustness by applying adversary attacks using the Fast Gradient Method
– Employed Deep SHAP and LIME techniques to investigate model interpretability

•**Comparative Study of Image Generation with Stabilized DCGAN and ACGAN** *link*
Deep Learning course, University of Tehran, Iran Fall 2022
– Implemented DCGAN and ACGAN for image generation based on referenced papers
– Applied Stabilizing techniques

•**Comparative Study of Standard ML Algorithms on Music Genre Classification** *link*
Machine Learning course, University of Tehran, Iran Fall 2021
– Collected music pieces from 5 different Irainian Instruments
– Applied dimensionality reduction, clustering & classification techniques

•**EEG-based Emotion Recognition using Deep Reinforcement Learning** *link*
Bachelor's Project, Babol Noshirvani University of Technology, Iran Summer 2021
– Applied deep reinforcement learning for recognizing emotions based on EEG signals

Honors and Awards

- **Top Ranked among Master's Students** *2024*
  Ranked 4th in Artificial Intelligence and Robotics Major, University of Tehran, Iran

- **Awarded a Prestigious Scholarship from the University of Tehran** *2021*
  Chosen among 18 from 14,000+ participants in the Master's Entrance Exam

- **Top Ranked among Bachelor's Students** *2020*
  Ranked 3rd at Computer Engineering Dept., Babol Noshirvani University of Technology, Iran

Licenses & Certifications

- **Computational Neuroscience Summer School Teaching Assistant** [Certificate]
  Neuromatch Academy Summer 2023
  – Mentored the students during the Tutorials and Project

- **Computational Neuroscience Summer School Student** [Certificate]
  Neuromatch Academy Summer 2022
  – Completed the Tutorials and Project

Selected Courses

Graduate	Undergraduate
Trustworthy AI: 19.8/20	Signals & Systems: 19.5/20
Neural Networks & Deep Learning: 19.94/20	Graph Theory: 20/20
Machine Learning: 19/20	Introduction to Programming Contests: 20/20
Statistical Inference: 18.7/20	Operating Systems: 20/20
Data Analysis: 20/20	Fundamentals of Compiler Design: 19.1/20
Introduction to Cognitive Neuroscience: 18.45/20	Language Theory & Automata: 18/20

Technical Skills and Interests

Programming Languages:: Python(Advanced), MATLAB(Proficient), R(Proficient), SQL(Proficient), Java(Familiar)
Development Tools and Frameworks:: Git, EEGLAB, FieldTrip, PsychoPy, MNE, PyTorch, TensorFlow, Scikitlearn, Matplotlib, Pandas, NumPy, SciPy, etc.

Languages

Farsi (Native)
English (Fluent)
  – TOEFL score: 110/120 *(R: 28, L: 29, S:30, W:23)*

References

Mohammad-Reza Abolghasemi Dehaqani	**Master's thesis Supervisor** *Assistant Professor, University of Tehran* *Electrical and Computer Engineering Department* *dehaqani@ut.ac.ir*
Hesam Omranpour	**Bachelor's thesis Supervisor** *Associate Professor, Babol Noshirvani University of Technology* *Electrical and Computer Engineering Department* *h.omranpour@nit.ac.ir*
Lisa Genzel	**Internship Supervisor** *Associate professor, Radboud University* *Donders Centre for Neuroscience-Neurobiology* *l.genzel@donders.ru.nl*

Please let me know in advance if you plan to contact the references I've provided.