Sara Rostamidarounkola

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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

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 pattern recognition and statistical techniques 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
  - Collaborated with fellow TAs and instructors to ensure a valuable learning experience
- **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 techniques
  - Applied ML clustering & classification algorithms
- **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

Mohammadreza 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**
	Assistant 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.