Sara Rostami Darounkola

M.Sc. Student of Artificial Intelligence and Robotics
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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 in-house equipment
  – 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

•**Role of Frontotemporal Circuits in the Representation of Complex Objects** *link*
Master's Thesis, University of Tehran, Iran Spring 2023- Present
  – Collecting 128-channel EEG Data from 15 subjects
  – Preprocessing EEG data with EEGLAB based on Makoto's pipeline
  – 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** *2023*
  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.