Sara Rostami

M.Sc. Student of Neuroscience
University of Western Ontario, London, Canada

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Website
GitHub Profile
LinkedIn Profile

Education

•Master of Science in Neuroscience *Sep 2025-Present*
University of Western Ontario, Canada

•Master of Science in Artificial Intelligence and Robotics *Sep 2021-2024*
University of Tehran, Iran GPA: 19.12/20

•Bachelor of Science in Computer Engineering *Sep 2016-2021*
Babol Noshirvani University of Technology, Iran GPA: 17.38/20

Technical Skills

Programming Languages:: Python(Advanced), MATLAB(Advanced), R(Proficient), SQL(Proficient), Java(Familiar)

Development Tools and Frameworks:: Git, PyTorch, TensorFlow, Scikitlearn, Psycopg2, NumPy, Pandas, Selenium, BeautifulSoup, Matplotlib, Seaborn, plotly, SciPy, EEGLAB, FieldTrip, PsychoPy, MNE, etc.

Research Experience

•Research Assistant *Sep 2025 – Present*
Mohsenzadeh Lab, University of Western Ontario, Canada
– Assisting in the collection of EEG and fNIRS data
– Preprocessing multimodal neural data using MATLAB
– Conducting statistical analyses to identify neural correlates of cognitive processes
– Designing and training artificial neural network (ANN) models based on experimental findings

•Research Assistant *Aug 2022 - Aug 2025*
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

Selected Projects

•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

•Cryptocurrency Price Prediction and Analysis Using Machine Learning *link*
Data Analysis course, University of Tehran, Iran Fall 2022
– Collected and preprocessed historical cryptocurrency data using Selenium
– Built and evaluated machine learning models to predict Bitcoin price trends
– Applied feature engineering and dimensionality reduction to optimize accuracy

•Descriptive Data Analysis of Hate Crime *link*
Data Analysis course, University of Tehran, Iran Fall 2022
– Conducted EDA to uncover trends in crime types, victim demographics, and geographic patterns
– Generated insights to identify major bias motivations and provided visualizations for actionable reporting

•Design and Analysis of a Database for Birth Statistics in Iran *link*
Data Analysis course, University of Tehran, Iran Fall 2022
– Designed a PostgreSQL database to store birth statistics in Iran from 2012 to 2021
– Querying the database using Psycopg2
– Connecting PostgreSQL to QGIS via PostGIS for visualizing geographic Data

•Process Mining of Patients Data and Business Analytics of Customer Data *link*

Data Analysis course, University of Tehran, Iran Fall 2022

– Analyzed patient treatment processes using real-world datasets
– Visualized results with Histograms, bar plots, dot plots and heatmaps
– Performed customer retention analysis using retention rates and cohort visualizations

•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

Teaching Experience

•Teaching Assistant, Computational Neuroscience Summer School *Summer 2025*

Neuromatch Academy

– Project TA (Summer 2025)
– Regular TA (Summer 2023)

•Teaching Assistant for Master's Courses *Spring 2023*

University of Tehran, Iran

– Statistical Inference
– Introduction to Cognitive Neuroscience

Licenses & Certifications

•Computational Neuroscience Summer School

Neuromatch Academy 2022–2025

– **Project Teaching Assistant (2025)** – Assisted students with dataset handling and project development Certificate
– **Regular Teaching Assistant (2023)** – Mentored students during tutorials and projects Certificate
– **Student (2022)** – Completed tutorials and final group project Certificate

Honors and Awards

•Western University Graduate Funding Package *2025–2027*

Competitive funding award valued at $36,950 per year for two years, Western University, Canada

•Vector Institute Research Grant *2025–2026*

$4,000 grant for graduate students of Vector-affiliated faculty, recognizing excellence in AI research potential

•Top Ranked among Master's Students *2024*

Ranked 3rd in Artificial Intelligence and Robotics Major, University of Tehran, Iran

•Ranked 98th in Master's Entrance Exam *2021*

Accepted into the University of Tehran as one of 18 students selected from over 14,000 participants

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.