Sara Rostami

M.Sc. Student of Neuroscience
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⚲ Website
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EDUCATION

•**Master of Science in Neuroscience (Machine Learning Specialization)** *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.