

ARSHAK REZVANI

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RESEARCH INTERESTS

- Generative AI
- Natural Language Processing
- Computer Vision
- Robust & Trustworthy AI
- Probabilistic Machine Learning
- Healthcare AI

EDUCATION

Technische Universität Darmstadt - Darmstadt, Germany

January 2026 - Present

Master of Science, *Information and Communication Engineering*

Sharif University of Technology - Tehran, Iran

September 2019 - February 2024

Bachelor of Science, *Electrical Engineering*

Bioelectric Track, Overall GPA: **3.71/4.00**

Thesis: *Comparison of Multi-Channel EEG Based Graph Learning Methods for Alzheimer's Disease Detection*

- Developed a novel method to construct EEG-based graphs using autoregressive models for brain connectivity analysis and disease classification.

Allameh Helli High School, Iran

September 2016 - July 2019

Diploma in Physics and Mathematics Discipline, Overall GPA: **19.2/20.0**

PUBLICATIONS

- **Arshak Rezvani**, Nasrin Ravansalar, Mohammad Ali Akhaee, Andrew J. Greenshaw, Russell Greiner, Maryam S. Mirian, Muhammad Yousefnezhad, Martin J. McKeown, "DiffuseGaitNet: Improving Parkinson's Disease Gait Severity Assessment with a Diffusion Model Framework," *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, Nov. 2024. [link](#)
- **Arshak Rezvani**, Ali Akbari, Kosar Sanjar Arani, Maryam Mirian, Emad Arasteh, Martin J. McKeown, "Interpretable EEG-to-Image Generation with Semantic Prompts," accepted to the Actionable Interpretability Workshop at ICML 2025. [link](#) [link](#)

TEACHING EXPERIENCE

Deep Generative Models*	<i>Fall 2025</i>	Deep Learning*	<i>Fall 2023, 2025</i>
Introduction to Neural Networks	<i>Fall 2023</i>	EEG Signal Processing*	<i>Fall 2023</i>
AI & Biological Computations	<i>Fall 2022</i>	Foundations of Programming	<i>Fall 2020</i>
Electrical Circuits I	<i>Spring 2022</i>	Object Oriented Programming	<i>Spring 2020, 2021</i>
Introduction to Machine Learning	<i>Spring 2022</i>	Electronic Circuits	<i>Spring 2021</i>

* Graduate-level courses

SKILLS

Programming Languages:	Python, C/C++, Java, Matlab.
Libraries & Tools:	PyTorch (+Geometric), TensorFlow (+Probability), NumPy, SciPy, Pandas, Scikit-learn, Keras, EEGLab, AFNI, Psychtoolbox.
Other Tools:	Linux, Git, Vim, Jupyter, LaTeX.

LANGUAGES

Persian: Mother tongue

English: Professional proficiency (TOEFL iBT (May 17, 2025): **108/120** (R26/L30/S27/W25))

REFERENCES

Maryam S. Mirian

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Martin J. McKeown

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