

Armin Panjehpour *Feb 21, 2001*

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University of Western Ontario • London, Canada

Education

University of Western Ontario	London, Canada
PhD degree in Neuroscience	<i>Sep 2023 - Present</i>
Graduate student under supervision of Andrew Pruszynski & Jorn Diedrichsen	
Sharif University of Technology	Tehran, Iran
Bachelor degree in Electrical Engineering / Biomedical Engineering major	<i>2019 – 2023</i>
GPA 17.60/20	
- Ranked 95 among 144,000 participants in the entrance exam	
National Organization for Development of Exceptional Talents (Nodet)	Isfahan, Iran
High school diploma degree in Mathematics and Physics	<i>2017 – 2019</i>

Selected Research Experiences

- [Sensorimotor Superlab](#) Western University - London, Ontario, Canada
PhD Student *Sep 2023 – Present*
Investigating the underlying mechanisms of movement sequence preparation and execution in humans and non-human primates
Under supervision of [Andrew Pruszynski](#) & [Jorn Diedrichsen](#)
 - [IPM School of Cognitive Sciences](#) Institute for Research in Fundamental Sciences - Tehran, Iran
Research Assistant *July 2022 – March 2023*
Investigating the encoding of visual search parameters and efficiency of the search by the single neurons of the prefrontal cortex in non-human primates
Under supervision of [Ali Ghazizadeh](#)
 - [Hamid Aghajan's Neuroscience Lab](#) Sharif University of Technology - Tehran, Iran
Research Assistant *July 2021 – July 2022*
Investigating spatio-temporal pattern of neural oscillations (traveling waves) in human cortex during brain entrainment using EEG
Under supervision of [Hamid Aghajan](#)
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Research Outputs

Research Articles

- [Sequence preparation is not always associated with a reaction time cost](#) *Pre-print, 2025*
A. Panjehpour, M. Kashefi, J. Diedrichsen, A. Pruszynski
- [Prefrontal Cortex Encodes Value Pop-out in Visual Search](#) *iScience, 2023*
M. Abbaszadeh, A. Panjehpour, MA. Alemohammad, A. Ghavampour, A. Ghazizadeh

Posters/Talks

- [Sequence preparation is not always associated with a reaction time cost](#) *NCM 2025 - Panama City*
A. Panjehpour, M. Kashefi, J. Diedrichsen, A. Pruszynski / Poster
- [Sequential planning is not always associated with a reaction time cost](#) *NCM 2024 - Dubrovnik*
A. Panjehpour, M. Kashefi, J. Diedrichsen, A. Pruszynski / Poster
- [Sequential planning is not always associated with a reaction time cost](#) *NRD 2024 - London, ON*
A. Panjehpour, M. Kashefi, J. Diedrichsen, A. Pruszynski / Talk
- [The quality of visual entrainment correlates with forward/backward traveling wave properties in human cortex](#) *AAIC 2023 - Amsterdam*
M. Lahijanian, A. Panjehpour, H. Aghajan / Poster

Selected Course Projects

Neuroscience

- **Neural Coding and Population Analysis**
 - IF and LIF spiking analysis (a point process study) [Github]
 - Analyzing the activity of a population of units in Parietal cortex [Github]
 - Noise and signal correlation and the effect of noise on encoding and decoding [Github]
- **Learning and Decision Making**
 - Reinforcement learning of a rat in the water maze [Github]
 - Classical conditioning paradigms and learning paradigms with uncertainty [Github]
 - Drift Diffusion model for evidence accumulation, MT and LIP interaction model [Github]
- **Investigation of Cortical Traveling Waves in Array dataset**
 - Analyzing the activity of Local Field Potentials in Premotor Area F5 [Github]
- **Underlying Mechanisms of Feedback Alignment**
 - Analyzing the mathematics of feedback alignment in a biologically inspired network [Github]
- **Visual Attention and Visual Model**
 - Saliency maps to predict where humans look [Github]
 - Sparse representation of natural images which is matched with receptive fields of simple cells in V1 [Github]
- **Motor Neurons LFP Activity Analysis**
 - Motor cortex LFP activity encodes different movements in Reach-to-Grasp task [Github]

Medical Signal Processing

- **EEG signal classification** [Github]
 - Feature extraction, feature selection, and classification using neural networks and genetic algorithms

Professional & Community Activities

Teaching Assistant

- Neuroscience Seminar Series – Graduate course, Western Fall 2025
- Advanced Topics in Neuroscience – Graduate course, Sharif Spring 2023
- Foundations of Neuroscience – B.Sc. course, Sharif Fall 2023
- Computational Intelligence – B.Sc. course, Sharif Fall 2023
- Signals and Systems – B.Sc. course, Sharif Spring 2022
- Neuroscience of Learning and Cognition – Graduate course, Sharif Fall 2021 - Fall 2022

Society of Neuroscience Graduate Students (SONGS)

- Presentation Workshop Chair September 2025 - August 2026

Brainhack Western

- Executive team member of Brainhack 2025 March 2025

Sharif Neuroscience Symposium

- Executive team head of SNS 2023 November 2022 - March 2023
- Executive team member of SNS 2021 November 2020 - March 2021

Resana's Annual Conference on Technology [EE Dept. Sharif University of Technology]

- Head manager of ReACT 2021 August 2021 - January 2022
- Executive team member of ReACT 2020 October 2020 - December 2021

Selected Academic Courses

Graduate Courses

- Principles of Neuroscience (Neuro 9500) [88/100] • Advanced Topics in Neuroscience [20/20] • Neuroscience of Learning, Memory and Cognition [20/20] • EEG Signal Processing [17.2/20]

Undergraduate Courses

- Foundations of Neuroscience [19.5/20] • Computational Intelligence [16.3/20] • Signals and Systems [18.5/20] • C++ Programming [19.9/20] • Medical Signal & Image Processing Lab [19.2/20] • Principles of Biomedical Engineering [17/20] • Linear Algebra [16/20] • Parallel Programming [18.4] • Neuroscience Lab [19.1]