

Armin Panjehpour *Feb 21, 2001*

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University of Western Ontario • London, Canada

Education

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| 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 | 2019 – 2023 |
| 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 | 2017 – 2019 |
| - Nodet is a highly selective collection of schools. Admission is only offered to a few (< 1% of applicants) through a competitive evaluation process which is largely based on problem solving, math and scientific skills. | |
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Selected Research Experiences

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| - Sensorimotor Superlab | Western University - London, Ontario, Canada |
| PhD Student | <i>Sep 2023 – Present</i> |
| 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 | <i>July 2022 – March 2023</i> |
| 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 | <i>July 2021 – July 2022</i> |
| 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

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| - Prefrontal Cortex Encodes Value Pop-out in Visual Search | <i>iScience, 2023</i> |
| M. Abbaszadeh, A. Panjehpour , MA. Alemohammad, A. Ghavampour, A. Ghazizadeh | |

Posters/Presentations

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

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

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] • Neruoscience Lab [19.1]