## Pedram Parnianpour, PhD

## **Postdoctoral Research Fellow**

Djavad Mowafaghian Centre for Brain Health, University of British Columbia

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## **Education**

- PhD in Neuroscience, University of Alberta, Edmonton, AB, Canada (2018–2024) —
  GPA: 4.0/4.0
- MSc in Biomedical Engineering, Amirkabir University of Technology, Tehran, Iran (2014–2017)
- **BSc in Electrical Engineering**, Tafresh University, Iran (2010–2014)

## **Professional Experience**

- Postdoctoral Research Fellow, UBC Djavad Mowafaghian Centre for Brain Health, Vancouver, BC (2024–Present)
- Sessional Instructor Biomedical Instrumentation (ENSC 475/875), Simon Fraser University, Burnaby, BC (Spring 2025)
- Graduate Research Fellow, University of Alberta Neuroscience & Mental Health Institute, Edmonton, AB (2018–2024)
- Graduate Teaching Assistant, University of Alberta Faculty of Engineering (2021– 2024)
- Graduate Research Assistant, Amirkabir University of Technology, Tehran, Iran (2014–2017)

## **Teaching Experience**

- Instructor, ENSC 475/875 Biomedical Instrumentation, Simon Fraser University (Spring 2025)
- TA, Math 102 & Physics 130, University of Alberta (2021–2024)
- Lab Instructor, Logic Circuits, Control Systems, Microprocessors, Amirkabir University (2014–2017)

## Supervision

- 2023 Socrates Temraz: Cerebral degeneration in ALS using T2-weighted MRI
- 2022 Adam Elamy: Functional connectivity of basal ganglia in ALS
- 2021 Ekhlas Assaedi: Multimodal MRI texture analysis in ALS
- 2020 Andrew Wu: Longitudinal FLAIR MRI texture analysis in ALS

#### **Selected Publications**

- Parnianpour, P., Steinbach, R., Buchholz, I.J., et al. (2024). *T1-weighted MRI Texture Analyses in ALS Patients Stratified by the D50 Progression Model. Brain Commun* https://doi.org/10.1093/braincomms/fcae389
- Parnianpour, P., Benatar, M., Briemberg. H., et al. (2024). Mismatch between clinically-defined classification of ALS stage and the burden of cerebral pathology, J Neurol. https://doi.org/10.1007/s00415-024-12190-x
- Kuan, LH., <u>Parnianpour, P.</u>, Kushol, R. et al. (2023). Accurate personalized survival prediction for amyotrophic lateral sclerosis patients. Sci Rep 13, 20713. https://doi.org/10.1038/s41598-023-47935-7
- Kushol, R., <u>Parnianpour, P.</u>, Wilman, A.H. et al. (2023). Effects of MRI scanner manufacturers in classification tasks with deep learning models. Sci Rep 13, 16791. https://doi.org/10.1038/s41598-023-43715-5

#### **Selected Presentations**

- 13th Annual Neuroimaging Society in ALS, Montreal (2024)
- 34th International Symposium on ALS/MND, Basel, Switzerland (2023)
- ALS Canada Research Forum (2019–2023)

- OHBM Annual Meetings (2019, 2021)
- Alberta Imaging Symposium, Calgary (2019)

## Awards & Scholarships

- ALS Canada Travel Award (2024)
- Academic Travel Grant, University of Alberta (2023)
- Doctoral Recruitment Scholarship, University of Alberta (2018)

## **Technical Skills**

- Neuroimaging Tools: SPM, FSL, CONN, ITK-SNAP, MRIcroGL, ImageJ
- **Programming**: Python, MATLAB, Linux
- Machine/Deep Learning: PyTorch, Keras, TensorFlow
- Data Analysis: SPSS, advanced statistics, survival modeling
- **Domains**: ALS, functional MRI, texture analysis, graph theory

# Leadership & Service

- President, UBC Postdoctoral Association (2025–2026)
- Reviewer: NeuroImage: Clinical, Neuroradiology, Brain Research Bulletin (since 2024)
- Interviewer, UBC Faculty of Medicine MD Admissions (2025)