

Ashkan Alvand

WORK EXPERIENCES

 Ph.D. in Psychology	July 2018 - present
Department of Psychology, the University of Auckland	
 Research Assistant	May 2022 - present
Department of Exercise Science, University of Auckland, Auckland, New Zealand	
 Graduate Teaching Assistant (GTA)	Mar 2021 - July 2022
Assistant teacher in the course <i>Psych 202</i> , Biopsychology	
 Research Assistant	July 2018 - Dec 2021
School of Psychology, University of Auckland, Auckland, New Zealand	
 Research Associate	Mar 2016 - Mar 2018
Institute for Cognitive and Brain Sciences, Shahid Beheshti University, Tehran, Iran	

EDUCATION

❖ Qualification: Doctor of Philosophy in Psychology	July 2018 – present
Provider: University of Auckland	
❖ Qualification: Master of Information Technology in Computer Networking	Oct 2014 – Aug 2016
Provider: Azad University, Garmsar Branch	
❖ Qualification: Bachelor of Information Technology	Oct 2010 – Sep 2014
Provider: University of Mazandaran	

Publications/Conference posters/Invited talks

- Milham, M., Petkov, C. I., Margulies, D. S., Schroeder, C. E., Basso, M. A., Belin, P., ... & Messinger, A. (2021). **Towards Next Generation Primate Neuroscience: A Collaboration-based Strategic Plan for Integrative Neuroimaging**. DOI: <https://www.sciencedirect.com/science/article/pii/S0896627321007832>
- Farnaz Faridi, Ashkan Alvand, Reza Khosrowabadi (2020). **Brain structural correlates of intelligence in ADHD individuals**, *Basic & Clinical Neuroscience*. <http://dx.doi.org/10.32598/bcn.2021.2244.1>
- Milham, M., Petkov, C. I., Margulies, D. S., Schroeder, C. E., Basso, M. A., Belin, P., ... & Messinger, A. (2020). **Accelerating the evolution of nonhuman primate neuroimaging**. *Neuron*, 105(4), 600-603. DOI: [10.1016/j.neuron.2019.12.023](https://doi.org/10.1016/j.neuron.2019.12.023)

Poster presentation

- Ashkan Alvand, Reza Khosroabadi, Kaveh Kavousi "Graph analysis of brain functional connectivity in ADHD using task-free fMRI", the 5th international conference on basic and clinical neuroscience, Tehran, Iran, December 2016
- Ashkan Alvand*, Suzanne C. Purdy, Reece Roberts, Tracy Melzer, Catherine Morgan, Lynette J Tippet, Ian J Kirk and the BRNZ Collaboration "Large-Scale network analysis of functional connectivity in Individuals with Mild Cognitive Impairment and Alzheimer Disease", BRNZ conference, Queenstown, New Zealand, April 14-16, 2021

Oral presentation

- Seventeenth annual InHouse symposium: *graph theory analysis of functional connectivity, links with central auditory processing*. Organized by school of Psychology at the University of Auckland (Feb 21, 2020)

- Cogneuro talk series, *Brain Functional Organization of children with Auditory Processing Disorder: Network Neuroscience approach*, Organized by department of Psychology at the University of Auckland (June 18, 2021)

Training/Courses

• PRIME-DE Workshop	Sep 5-6, 2019
Held by Child Mind Institute and National Institute of Health (NIH) at the Wellcome Trust in London.	
• Mini FSL course	Feb 18-22, 2019
Held by the University of Oxford, Dunedin, New Zealand, Funded by the University of Auckland	
• MRI Course	April - June 2016
Held by Institute for Cognitive and Brain Sciences, Shahid Beheshti University, Tehran, Iran	

SKILLS & ATTRIBUTES

Neuroimaging applications

- f/MRI data preprocessing and denoising: Using open-source and inhouse pipelines such as fmripreg, scrubbing, Spike regression, ICA-AROMA, ICA-FIX, CompCore, and GLM (General Linear Modelling) for cleaning f/MRI data
- Multi-echo fMRI data preprocessing
- Graph theory analysis including constructing brain connectivity matrix, brain graph, global and nodal measures analysis, dynamic connectivity, brain null models, edge-centric connectivity, community detection
- ICA (Independent Component Analysis): Mathematical model for analyzing fMRI data
- Diffusion MRI data preprocessing using open-source methods such as QSIprep, MRtrix3, and FSL
- Tractography and fiber reconstruction
- Clinical Participant recruitment for MRI
- MRI data acquisition
- Quality control measure in fMRI and diffusion MRI processing
- Neuroimaging Statistical analysis

Neuroimaging Software

- FSL, SPM, AFNI, FreeSurfer, BrainNet viewer, BCT, MRICron, MRtrix3, NBS (Network-based statistic), DSI studio, PALM, Marsbar, GRETNA, GAT, QSIstudio, fMRIprep, BIDS

Computer and IT skills

- Programming: MATLAB, Python, Shell scripting, git
- Windows (XP,7,8.1,10) and Office package (Word, Excel, Access, PowerPoint)
- Adobe Photoshop, After effects, lightroom, illustrator
- Linux Ubuntu
- GitHub Web developing

Honors/Awards

- Travel award for attending PRIME-DE workshop in September 2019
- Ranking first in GPA among all M.Sc. students at the Azad University of Garmsar, 2016

Membership

❖ Member of Society of Neuroscience	June 2022 - present
❖ Member of Neuroimaging Research Group (NRG) at the University of Auckland	July 2018 - present
❖ Member of Organization of Human Brain Mapping (OHBM)	April 2020 - present
❖ Member of PRIMatE Data Exchange (PRIME-DE) group	Sep 2019 - present
❖ Member of New Zealand Neurological Foundation	July 2020 - present
❖ Member of Eisdell Moore Centre (EMC)	July 2018 – present
❖ Member of Brain Research New Zealand (BRNZ) early career researcher	July 2018 – present
❖ Committee member of Early Career Researcher (ECR) at Center for Brain Research (CBR)	May 2019 - May 2022
❖ Member of Post-Graduate Staff/Student Advisory Committee (PGSSAC)	Nov 2020 - Mar 2022