

Ashkan Alvand

WORK EXPERIENCES

 Research Assistant	Nov 2022 - present
Department of Psychology, University of Auckland, Auckland, New Zealand	
 Research Assistant	May 2022 - Sep 2022
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 – Dec 2022
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

- Alvand, A., Kuruvilla-Mathew, A., Kirk, I. J., Roberts, R. P., Pedersen, M., & Purdy, S. C. (2022). **Altered brain network topology in children with Auditory Processing Disorder: a resting-state multi-echo fMRI study.** *Neuroimage: Clinical*. <https://doi.org/10.1016/j.nicl.2022.103139>
- Milham, M., Petkov, C. I., Margulies, D. S., Schroeder, C. E., Basso, M. A., Belin, P., ... & Messinger, A. (2022). **Towards Next Generation Primate Neuroscience: A Collaboration-based Strategic Plan for Integrative Neuroimaging.** <https://www.sciencedirect.com/science/article/pii/S0896627321007832>
- Farnaz Faridi, Ashkan Alvand, Reza Khosrowabadi (2022). **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*. [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

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| • 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 skills

- **Functional MRI data analysis (preprocessing, denoising and quality control)**: application of inhouse and opensource pipelines (e.g., fmripreg) for data cleaning, including scrubbing, Spike regression, ICA-AROMA, ICA-FIX, CompCore, Multi-echo data preprocessing, and benchmarking the quality of denoising pipelines
- **Scanning operation**: MRI data acquisition, Clinical Participant recruitment
- **Network science application (Graph theory analysis)**: brain connectivity matrix, global and nodal measures analysis, dynamic connectivity analysis, null models, edge-centric connectivity, community detection, visualization
- **Diffusion MRI data preprocessing**: Tractography and fiber reconstruction, quality control, Inference
- **Statistical analysis**: Multivariate statistics, Linear modeling (GLM), parametric & non-parametric inference, permutation testing, ICA analysis
- **Machine learning**: Multivariate analysis, regression, classification, clustering
- **Meta-analysis**: Neurosynth, BrainWeb
- **Neuroimaging tools**: FSL, SPM, AFNI, FreeSurfer, BCT, GRETNA, GAT, MRtrix3, NBS, Marsbar, DSI studio, PALM, BrainNet viewer, MRICron, BIDS, DSISTudio, QSIstudio

IT skills

- **Programming**: MATLAB, Python, Shell (Unix), git, R
- **Windows** (XP,7,8.1,10), **Office package** (Word, Excel, Access, PowerPoint, Publisher, OneNote), **Linux** (Ubuntu, Debian)
- **Adobe**: Photoshop, After effects, lightroom, illustrator
- **Web development**: GitHub page (HTML, SCSS, CSS, Jekyll)

Honors/Awards

- EMC travel award for attending OHBM conference in July 2023
- 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

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| ❖ 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 |

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| ❖ 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 |