Ashkan Alvand

WORK EXPERIENCES

Ph.D. in Psychology   **July 2018 - present**
Department of Psychology, the University of Auckland

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 *Psych 202*, 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

- 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

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 Tippett, 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 skills

• ***Functional MRI data analysis (preprocessing, denoising and quality control):*** application of inhouse and opensource pipelines (e.g., fmriprep) 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

• 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**