

EDUCATION

University of Virginia, Charlottesville, VA.

PhD student, August 2021 – Present

Supported by interdisciplinary fellowship in Quantitative Neurobiology of Behavior.

University of St Andrews (U.K.)

Master's Degree: Psychology, November 2013

Undergraduate Degree: Psychology, June 2012

Continuing Education

Foundation for Advanced Education in the Sciences, NIH, Bethesda MD

- Summer, 2020: Data Visualization with R

- Fall, 2019: Deep Learning for Medical Imaging

- Spring, 2019: Machine Learning

RESEARCH EXPERIENCE

Department of Psychology, University of Virginia, Charlottesville, VA.

Aug 2021 – Present: First year PhD student.

Rotation 1: Supervised by Dr. Jack Van Horn, investigation of Parkinson's Disease metrics.

Rotation 2: Supervised by Dr. Per Sederberg, exploring functional connectivity changes in fMRI data during cognitive tasks.

National Institute of Neurological Disorders and Stroke, NIH, Bethesda, MD.

Oct 2020 – Aug 2021: Research/Image Analyst, supervised by Drs. M. Hallett and S. Horowitz, classification of functional movement disorders via machine learning using rs-fMRI measures.

Oct 2018 – Sep 2020: Research/Image Analyst, supervised by Dr. M.K. Floeter, longitudinal imaging analysis in C9orf72-mutation carriers with or without ALS and FTD.

Department of Neuroscience, Brown University, Providence, R.I.

Jul 2017 – Oct 2018: Research Specialist, MRI Research Facility

MRI/EEG data collection and analysis for a range of projects. Helped with training, equipment set up and guidance, scan collection and quality assurance.

Feb 2014 – Jun 2017: Research Assistant, supervised by Dr. M. Worden, MRI/EEG analysis of visual system dynamics during cognitive conflict in the Flanker task.

University of St Andrews, St Andrews, U.K.

Sep 2012 – Nov 2013: Masters student, supervised by Drs. P. Hibbard and J. Harris. Investigation of visual differences in people with migraine.

Jul – Aug 2011: Summer Student, supervised by Dr. D. Perrett

RELEVANT TECHNICAL SKILLS

Neuroimaging software: AFNI, FSL, FreeSurfer, BrainVision Recorder/Analyzer, fMRIPrep

High Performance Computing: experienced with Unix/Linux, parallel computing.

Statistics: R, SPSS

General: Matlab, shell scripting, Python

PUBLICATIONS

Waugh, R., Parker, J., Hallet, M & Horovitz, S. (Submitted, under review). Classification of Functional Movement Disorders with Resting State fMRI. [Preprint](#).

Cho, H., **Waugh, R.**, Wu, T., Panyakaew, P., Mente, K., Urbano, D., Hallett, M. & Horovitz, S. (Submitted, under review). Role of supplementary motor area in cervical dystonia and sensory tricks. [Preprint](#).

Waugh, R., Danielian, L., Shoukry, R., & Floeter, M., (2021). Longitudinal changes in network homogeneity in presymptomatic C9orf72 mutation carriers. *Neurobiology of Aging*, 99.

Shoukry, R., **Waugh, R.**, Bartlett, D., Raitcheva, D., & Floeter, M. (2020). Longitudinal changes in resting state networks in early presymptomatic carriers of C9orf72 expansions. *NeuroImage: Clinical*, 28.

CONFERENCE ABSTRACTS

Waugh, Venkadesh, Donahue, Schiehser, Petkus, O'Neill, Alger, Jakowec, Petzinger & Van Horn. (submitted, under review). Cognitive, physical, and neural metrics of Parkinson's Disease: A canonical correlation analysis. Annual meeting for the Organization for Human Brain Mapping, Jun. 2022.

Waugh, Parker, Hallett & Horovitz (submitted, under review). Classification of functional movement disorders via machine learning with resting state fMRI. Annual meeting for the Organization for Human Brain Mapping, Jun. 2022.

Unger, **Waugh** & Worden. Flexible biasing of visuospatial attention works through both target facilitation and distractor suppression. Poster at the annual conference of the Cognitive Neuroscience Society in San Francisco, CA, Mar. 2017.

Waugh, Barredo, Unger & Worden. Attention Effects in Early Visual Cortex Related to Conflict Adaptation. Poster at the annual conference of the Cognitive Neuroscience Society in New York, NY, Apr. 2016.

Unger, **Waugh** & Worden. Effects of Conflict-Driven Attention on High and Low Level Visual Processing. Poster at the annual conference of the Cognitive Neuroscience Society in New York, NY, Apr. 2016.

OTHER WORK

Master's Thesis: Individuals with migraine do not show evidence of increased internal noise in a visual contrast grating detection task with added external noise. Completed August, 2011.