Winson Yang Fu Zun

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EDUCATION

Ph.D. in Experimental Psychology: Cognitive Neuroscience, May 2023 (expected)
Texas Tech University (United States)

Masters of Science in Cognitive and Clinical Neuroscience, Specialization in Neuropsychology, July 2017
Maastricht University (Netherlands)

Bachelor of Arts in Psychology, June 2015
James Cook University Singapore

AWARDS & DISTINCTIONS

Track Representative (student/program liaison), University of Maastricht
Secretary – Mateship Program, James Cook University Singapore

RESEARCH EXPERIENCE

TEXAS TECH UNIVERSITY – DEPARTMENT OF PSYCHOLOGICAL SCIENCE, Lubbock, TX, 2018 - current
Graduate Research Assistant

Headed the Wise Aging Project, Working Memory Training Project, Neurofeedback Training Project. Improved the infrastructure of the lab's research analytic plans by building several custom scripts to suit the analysis of neuroimaging and behavioral data.

Key Accomplishments:

- Wrote preprocessing pipelines and scripts for fMRI and EEG data
- Built custom software and programs to run Neurofeedback training.
- Built data analysis plans and codes for graph analysis, machine learning, functional connectivity analysis
- Conducted workshops for neuroimaging analysis
- Teach undergraduate research assistants neuropsychological assessments

TEXAS TECH UNIVERSITY – UNIVERSITY LIBRARIES, Lubbock, TX, 2018 - 2019
UX Team Graduate Assistant

Collaborated with the UX team to improve overall user experience of the Texas Tech University Library System. Advised and tested new features for the library

Key Accomplishments:

- Advised and tested several new features for the library, resulting in better student experience in using the OneSearch Library system

NATIONAL UNIVERSITY HOSPITAL SINGAPORE – DEPARTMENT OF PSYCHOLOGICAL MEDICINE, Singapore, SG, 2017-2018
Research Assistant

Prepared and analyzed data for two separate projects, including a study that understands the needs, burden, and quality of life of family caregivers of cancer illness; and a Randomized Control Trial on mindfulness practices in an elderly population. Independent project includes *Validation of the Needs Assessment of Family Caregivers-Cancer (NAFC-C) questionnaire in an Asian population*.

Key Accomplishments:

- Data entry and quality assurance of the study questionnaire, leading to accurate and precise refinement of the questionnaire
- Conducted statistical analyses on the psychometrics of questionnaires, leading to validation of questionnaires being used in a Singapore population and context
- Prepared and authored manuscripts for publications, and conferences

UNIVERSITY OF CALIFORNIA SAN FRANCISCIO – MEMORY AND AGING CENTER, San Francisco, CA, 2016-2017
Visiting Scholar

Drive the progress of critical research by analyzing data and developing analysis tools to prepare data, models, and visualizations for conference presentations and journal publications. Independent projects include *Relationship between Semantic Appraisal Network and TASIT-EET* and *Relationship between Occupation and Stress on Inflammation, White Matter, and Processing Speed*.

Key Accomplishments:

- Completed two independent projects and theses as part of the Maastricht University Research Master's program
- Developed, maintained, and automated processing of a social function resting-state fMRI database using MATLAB, python, and R.
- Created accurate statistical models and data visualizations by programming automated processes in MATLAB, and R.
- Created custom and general interactive dashboards using Tableau and R (Markdown, Shiny) for a wide range of researchers
- Authored concise and accurate reports of qualitative and quantitative data to create insights for diverse audiences.

MAASTRICHT UNIVERSITY– FACULTY OF PSYCHOLOGY AND NEUROSCIENCE, Maastricht, Netherlands, 2015-2016
Research Assistant

Collaborated with a research team to plan, conduct, and improve data collection methods on human participants for the project, *Behavioral and neural basis for individual differences in auditory and motor timing and sequencing*. Developed research and analytics skills by attending workshops and tutorials, and contributed to discussions and examinations of theory and practice.

Key Accomplishments:

- Collected research data to explore temporal processes in healthy adults by designing and administering EEG experimental paradigms.
- Learned to analyze EEG data using state-of-the-art methods with MATLAB
- Authored a proposal for the examination of auditory-motor synchronization in individuals with Parkinson's disease.

NATIONAL INSTITUTE OF EDUCATION, Singapore, 2014
Research Assistant (Part-Time)

Collaborated with a research team on the project, *Factors that Impact Child and Family Outcomes in EIPIC*, to establish benchmarks for cognitive development of children in Singapore.

Key Accomplishments:

- Administered Brigance IED III to children seven years old and younger in compliance with governance guiding research on human participants and minors.
- Scored and entered test results to ensure the accuracy of data

CLINICAL EXPERIENCE

UNIVERSITY OF CALIFORNIA SAN FRANCISCIO – MEMORY AND AGING CENTER, San Francisco, CA, 2016-2017
Visiting Scholar

Conducted several neuropsychological bedside tests and UDS as part of a clinical internship. Discussed patient clinical findings with a team of neurologists, neuropsychologists, nurses, and genetic counsellors for patients' diagnoses and prognoses

Key Accomplishments:

- Conducted several neuropsychological bedside tests and UDS for patients with dementias
- Written neuropsychological test reports as part of the whole neuropsychological diagnostics process
- Discussed and presented patients' clinical findings with a team of neurologists, neuropsychologists, nurses, genetic counsellors, medical students, and psychology practicum students at weekly case conferences

NATIONAL KIDNEY FOUNDATION, Singapore, 2014

MSA Practitioner Volunteer

Conducted monthly activities and programs for patients who are undergoing dialysis treatment at several dialysis centers in Singapore, to improve their mental wellbeing.

Key Accomplishments:

- Conducted solution-focused brief therapy on patients to help patients understand their concerns on their mental, physical, and emotional health
- Planned and executed several mind-stimulating activities with a group of volunteers to help patients stimulate their brains while they in the dialysis centers

TEACHING EXPERIENCE

JAMES COOK UNIVERSITY SINGAPORE – ENGLISH, MATHEMATICS AND STATISTICS PROGRAM, Singapore, 2014-2015
Peer Mathematics and Statistics Tutor

Taught students from a range of programs to build and strengthen their understanding of statistical analysis methods, applications, and tools. Facilitated exam preparation, project design and development, and general assignments.

Key Accomplishments:

- Leveraged SPSS expertise to create and teach student workshops in SPSS features and functions.
- Guided students in research designs and methodologies for thesis projects and other research assignments.
- Facilitated and tutored small revision groups for exam preparation

PUBLICATIONS

Yang, W.F.Z., Wu, Ding, X.Q., Fan, Y.X., Tang, Y. (submitted). Brief meditation training modulates the resting causal relationship between the cingulate cortex and insula.

Yang, W.F.Z., Wu, Q.X., Ding, X.Q., Fan, Y.X., Tang, Y. (submitted). Increased inter-network connectivity in the triple networks after a short-term mindfulness meditation.

Yang, W.F.Z., Wu, Q.X., Tang, Y. (submitted). Consolidation during a single-session neurofeedback.

Yang, W.F.Z., Liu, J. L., Tan, T., Chan, Y.H., Griva, K., Kuparasundram, S., Mahendran, R. (submitted). Validation of the Needs Assessment of Family Caregivers-Cancer questionnaire in an Asian population.

Yang, W.F.Z., Tan, T., Chan, Y.H., Griva, K., Mahendran, R. (submitted). The effect of cancer patients' treatment phases on family caregivers' unmet daily activity needs and depression.

Yang, W.F.Z., Toller, G., Shdo, S., Kotz, S., Brown, J., Kramer, J.H., Miller, B.L., Rankin, K.P. (in prep). Resting functional connectivity in the semantic appraisal network predicts accuracy of emotion reading.

Liu, T., Wu, Q., Luo X., Chen, S., **Yang, W.F.Z.,** Liao, Y., Tang, J., & Tang, Y. (2019). Stigmatizing towards mental disorders among non-mental health professionals in six general hospitals in Hunan Province. Frontiers in Psychiatry, 10, 946.

Taraban, R., Pittman, J., Nalabandian, T., **Yang, W. F. Z.,** Marcy, W., Gunturu, S.M. (2019). Creating and testing specialized dictionaries for text analysis. *East European Journal of Psycholinguistics, 6*(1), 1-10.

Toller, G., **Yang, W.F.Z**., Brown, J., Ranasinghe, K.G., Shdo, S.M., Kramer, J.H., Seeley, W.W., Miller, B.L., Rankin, K. (2019). Divergent patterns of loss of interpersonal warmth in frontotemporal dementia syndromes are predicted by altered intrinsic network connectivity. *Neuroimage: Clinical, 22,* 101729.

PRESENTATIONS

Yang, W.F.Z., Tang, Y. (2020). Spectral dynamic causal modelling in resting-state neuroimaging reveals changes in effective connectivity after meditation training. Poster for the Organization of Human Brain Mapping 2020 Meeting, Montreal (Meeting held as virtual conference due to COVID-19).

Yang, W.F.Z., Tang, Y. (2019). Increased inter-network connectivity in the triple networks after short-term mindfulness meditation training. Poster for the Cognitive Neuroscience Society 2019 Meeting, San Francisco.

Yang, W.F.Z., Lim, H., Chan, Y.H., Tan, T., Griva, K., Mahendran, R. (2018). Unmet-needs of Family Caregivers of Cancer Patients Across Treatment Phases in Singapore. Poster session presented at the World Congress of Psycho-Oncology, Hongkong.

Mahendran, R., **Yang, W.F.Z,** T., Chan, Y.H., Griva, K. (2018). Cancer Caregivers Needs and the Impact on their Well-Being and Care Burden. Poster session presented at the World Congress of Psycho-Oncology, Hongkong.

Shdo, S.M., Toller, G., Ranasinghe, K., **Yang, W.**, Datta, S., Sturm, V., Miller, B., Rankin, K.P. (2018). Interaction of neural networks underlying heightened threat vigilance using a neurodegenerative disease lesion model. Poster presented at the 2018 Annual Conference of Society for Affective Science, Los Angeles.

PUBLIC OUTREACH

Yang, W.F.Z. (2020). Finding the Oasis: An online guide to navigating adversity with compassion. Virtual half-day workshop-retreat given at Fo Guang Shan San Bao Temple, San Francisco.

Yang, W.F.Z. (2019). Three secrets to growth mindset. Talk given at Fo Guang Shan San Bao Temple, San Francisco.

Yang, W.F.Z. (2018). Compassion in daily life. Talk given at Fo Guang Shan San Bao Temple, San Francisco.

Yang, W.F.Z. (2018). 念佛，慈悲人生 (Compassionate Life with Mantra Recitation). Talk (in Chinese) given at Fo Guang Shan San Bao Temple, San Francisco.

Yang, W.F.Z. (2018). What is it like to study cognitive neuroscience? Talk given at Psi Chi Society, Texas Tech University.

Yang, W.F.Z. (2018). Meditation is not magic: What can neuroscience tell us about meditation? Talk given at Fo Guang Shan San Bao Temple, San Francisco.

Yang, W.F.Z. (2018). 神经学与佛教的概念 (The concepts of neuroscience and Buddhism). Talk (in Chinese) given at Fo Guang Shan San Bao Temple, San Francisco.

AWARDS, SCHOLARSHIPS AND GRANTS

Received the **2019 Darcy Reich Memorial Scholarship.** Texas Tech University

Selected as New Investigator for **Mind and Life Summer Research Institute 2019.** Mind and Life Institute. June 2019, Garrison Institute, New York.

Received the **2018 Sheri E. Holloway Endowment Scholarship.** Texas Tech University.

Received Scholarship Registration for **2018 Mind & Life International Symposium for Contemplative Research (ISCR).** Mind and Life Institute. November 2018 Phoenix, Arizona.

COMMUNITY LEADERSHIP

Volunteer, FO GUANG SHAN SAN BAO TEMPLE, San Francisco, 2017

MSA Practitioner Volunteer, NATIONAL KIDNEY FOUNDATION, Singapore, 2014

Volunteer, INSTITUTE OF MENTAL HEALTH, Singapore, 2014

Volunteer, RAINBOW CENTRE, Singapore, 2014

TECHNICAL SKILLS

R • Python • SPSS • MATLAB • JavaScript • PostgreSQL • Tableau

Microsoft Word • Microsoft Excel • Microsoft PowerPoint • Adobe Photoshop • Adobe Illustrator

ADHOC REVIEWER

NeuroImage
NeuroImage: Clinical
Mindfulness