Winson Fu Zun Yang

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EDUCATION

Ph.D. Experimental Psychology: Cognitive Neuroscience. **August 2018 – May 2023 (expected)**
Department of Psychological Sciences, Texas Tech University, USA

M.Sc. Cognitive and Clinical Neuroscience, Specialization in Neuropsychology. **August 2015 – July 2017**
Faculty of Psychology and Neuroscience, Maastricht University, Netherlands GPA: 7.94/10

> *Thesis 1: Individual differences in semantic appraisal network connectivity predict accuracy of emotion reading.*
> Advisors: Katherine Rankin, PhD, Sonja Kotz, PhD.
> *Thesis 2: Interplay between occupation, stress, and inflammation in old-age cognitive decline.*
> Advisors: Joel Kramer, PsyD, Rudolf Ponds, Ph.D.

MAJOR RESEARCH GOALS

Understand brain-behavior relationship and processes of flexible thoughts, behaviors, and emotions after mindfulness-based interventions.

Develop computational and integrative models of the body-brain-mind relationship

Applications of research findings into the development of clinical interventions and tools (e.g., intervention selection, efficacy, markers of improvements, usable and wearable products)

RESEARCH EXPERIENCE

TEXAS TECH UNIVERSITY, DEPARTMENT OF PSYCHOLOGICAL SCIENCE, USA. September 2018 – current
Ph.D. Candidate, Tang Lab

Headed and implemented several grant-funded projects, including the *Wise Aging Project*, *Working Memory Training Project*, *Neurofeedback Training Project*, and *Brain Stimulation Project*. Improved the infrastructure of the lab's research analytic plans by building pipelines to analyze neuroimaging, electrophysiological, 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 and conducting neuropsychological assessments

TEXAS TECH UNIVERSITY, UNIVERSITY LIBRARIES, USA. September 2018 – August 2019
UX Team Graduate Assistant

Collaborated with the UX team to test and improve the user experience of the Texas Tech University Library System.

Key Accomplishments:

- Advised and tested several new features for the library, resulting in a better user experience in using the OneSearch Library system.
- Advised, collected, and analyzed survey data to discover user needs and critical areas of improvement in the Library system.

NATIONAL UNIVERSITY HOSPITAL, DEPARTMENT OF PSYCHOLOGICAL MEDICINE, Singapore. November 2017 – July 2018
Research Assistant

Prepared and analyzed data for two separate projects: *Needs, burden, and quality of life of family caregivers of cancer illness*; and *Randomized Control Trial on mindfulness practices in an elderly 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 the validation of questionnaires being used in a Singapore population and context
- Prepared and authored manuscripts for publications, and conferences

UNIVERSITY OF CALIFORNIA SAN FRANCISCO, MEMORY AND AGING CENTER, USA.   October 2016 – July 2017
Visiting Scholar, Rankin Lab, Healthy Aging Lab

Drive the progress of critical research by 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.* Also conducted and reported several neuropsychological bedside tests as part of a clinical internship.

Key Accomplishments:

- Completed two independent projects and theses as part of the Maastricht University Research Master's program
- Developed and maintained resting-state pipeline and social function fMRI database using MATLAB, Python, and R.
- Created custom and general interactive data-exploring software using R Shiny for lab members and other researchers.
- Conducted and written neuropsychological test reports for patients with dementia
- Discussed and presented patients' clinical findings with a team of neurologists, neuropsychologists, nurses, genetic counselors, medical students, and psychology practicum students at weekly case conferences

MAASTRICHT UNIVERSITY, FACULTY PSYCHOLOGY & NEUROSCIENCE Maastricht, Netherlands.   January 2015 – September 2016
Research Assistant, Band Lab

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.

PUBLICATIONS

Yang, W.F.Z., Toller, G., Shdo, S., Kotz, S., Brown, J., Kramer, J.H., Miller, B.L., Rankin, K.P. (2021). Resting functional connectivity in the semantic appraisal network predicts accuracy of emotion reading. *Neuroimage Clinical,* 102755.

Zhou, Y., Liao, Y., Wu, Q., Ma, Y., Wang, D., Chen, S., Wang, X., Li, M., Wang, F., Wang, Y., Liu, Y., Liu, T., **Yang, W.F.Z.** (2021). General perception of doctor-patient relationship from patients during the COVID-19 pandemic in China: A cross-sectional study. *Frontiers in Public Health, 9,*

Xie, A., Wu, Q.X., **Yang, W.F.Z.,** Qi, C., Liao, Y., Wang, X., Hao, W., Tang, Y, Liu1, J., Liu, T., & Tang, J. (2021). Altered Patterns of Fractional Amplitude of Low-Frequency Fluctuation and Regional Homogeneity in Abstinent Methamphetamine-Dependent Users. *Scientific Reports*, *11*, 7705

Yang, W.F.Z., Liu, J. L., Tan, T., Chan, Y.H., Griva, K., Kuparasundram, S., Mahendran, R. (2020). Validation of the Needs Assessment of Family Caregivers-Cancer questionnaire in an Asian population. *BMC Psychology, 8*(84), 1-14.

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). Short-term mindfulness practice engages the reward system. Poster for the Mind & Life 2020 Contemplative Research Conference, "The State of the Field: Discoveries, Opportunities & Challenges", Madison (Meeting held as virtual conference due to COVID-19).

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).

Rijpma, M., Toller, G., **Yang, W.F.Z.**, Battistella, G., Miller, B., Seeley, W., Rankin, K. (2020). Patterns of effective connectivity in the midbrain underlie natural sensitivity to social cues. Poster for the Society of Affective Sciences 2020 Meeting, San Francisco (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.F.Z.**, 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.

INVITED TALKS AND PUBLIC OUTREACH

Workshop (July 2021): Ggplot 'em all, Pokemon! R data visualization workshop: Introduction to ggplot. Two-day virtual workshop. Texas Tech University.

Panel (June 2021): Saving time and resources: Open-science and sustainability. Organization of Human Brain Mapping (Virtual conference)

Workshop (December 2020): Career Workshop: Networking. Fo Guang Shan San Bao Temple, San Francisco.

Lecture. (September 2020). Not McMindfulness: Towards a Right View of Mindfulness. Fo Guang Shan San Bao Temple, San Francisco.

Workshop (June 2020): Career Workshop: Crafting your Self-introduction. Fo Guang Shan San Bao Temple, San Francisco.

Workshop (June 2020): R Programming Workshop: Introduction to the Tidyverse. Two-day virtual workshop. Texas Tech University.

Workshop (May 2020): Finding the Oasis: An online guide to navigating adversity with compassion. Virtual half-day workshop-retreat. Fo Guang Shan San Bao Temple, San Francisco.

Lecture. (December 2019). Three secrets to growth mindset. Fo Guang Shan San Bao Temple, San Francisco.

Lecture (December 2018). Compassion in daily life. Fo Guang Shan San Bao Temple, San Francisco.

Lecture (December 2018). 念佛，慈悲人生 (Compassionate Life with Mantra Recitation). Fo Guang Shan San Bao Temple, San Francisco.

Lecture (October 2018). What is it like to study cognitive neuroscience? Psi Chi Society, Texas Tech University.

Lecture (August 2018). Meditation is not magic: What can neuroscience tell us about meditation? Fo Guang Shan San Bao Temple, San Francisco.

Lecture (August 2018).神经学与佛教的概念 (The concepts of neuroscience and Buddhism). Fo Guang Shan San Bao Temple, San Francisco.

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AWARDS, HONORS, SCHOLARSHIPS

2019 Darcy Reich Memorial Scholarship. Texas Tech University — August 2019

New Investigator. Mind and Life Summer Research Institute 2019. Mind and Life Institute. New York, USA. — June 2019

Registration Award. Mind & Life International Symposium for Contemplative Research (ISCR). Phoenix, USA. — November 2018

2018 Sheri E. Holloway Endowment Scholarship. Texas Tech University. — August 2018

LEADERSHIP AND INVOLVEMENT

Volunteer, Sustainability and Environmental Action Sepcial Interest Group, OHBM — December 2020 – Present

Mentor@Mentor Tech, TEXAS TECH UNIVERSITY, Lubbock — August 2019 – May 2021

Volunteer, FO GUANG SHAN SAN BAO TEMPLE, San Francisco — April 2017 – Present

Student/Program liaison, MAASTRICHT UNIVERSITY, Maastricht, Netherlands — September 2015 – August 2017

TECHNICAL SKILLS

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

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

PROFESSIONAL ACTIVITIES

Ad-Hoc Reviewer: *NeuroImage, NeuroImage: Clinical, Mindfulness, Frontiers in Public Health*