CURRICULUM VITAE OF SHU ZHANG

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EDUCATION

Chinese Academy of Sciences (CAS), China 9/2017-9/2020
M.A. in brain neuroimaging development among human lifespan, developmental psychology
Supervisor: Prof. Gao-Xia Wei
Thesis: *Physical activity and brain development during school age*

University of Jinan (UJN), China 9/2012-7/2016
B.A. in applied psychology
Supervisor: Dr. Yu-Wei Zheng
Thesis: *Learning burnout and academic achievement*

RESEARCH EXPERIENCE

Department of Computer Science and Technology, Tsinghua University 8/2020-Now
Research assistant

- Project 1: Affective computing based on EEG and peripheral physiological signals
- Project 2: Facial expression recognition
- Project 3: Empathy in human-machine interaction

Supervisor: Prof. Dr. Yong-Jin Liu

Institute of Psychology, CAS 9/2017-9/2020
Graduate research assistant

- Project 1: MRI/FMRI Study: Chinese Color Nest Project, CCNP
  Engaged in the experimental design, behavior data collection, MRI data processing
- Project 2: Meta-analysis: The effect of Tai Chi Chuan on negative emotions
  Project leader. Engeged in study design, literature research, data analyzing, and writing the final paper.
- Project 3: ERP Study: Abdominal breathing among Qinghai inhabits
  Engaged in the experimental design, data processing and analyzing.

Supervisors: Prof. Dr. Xi-Nian Zuo and Prof. Dr. Gao-Xia Wei

HONORS AND AWARDS

2020 Merit Student (CAS)
2017-2019 Academic scholarship (CAS)
2012-2016 Academic scholarship (UJN)
2016 Excellent league member (UJN)
2013 Excellent league member (UJN)
2014 Second prize of "Star of Journalist" photography competition (UJN)
2013 Second prize in T-shirt design competition (UJN)

SKILLS

Softwares

*f*MRI/*s*MRI data processing and analyzing based on FreeSurfer/FSL/AFNI/SPM
EEG data processing based on EEGLAB
Experimental paradigm writing based on PsychToolBox

Coding languages

MATLAB, Shell, R and LaTeX scripts

Instruments

Operation and data analysis of multi-channels cardiac electrophysiological polygraph, *f*NIRS and EEG/ERP

INTERNATIONAL PROJECT INVOLVEMENT

Chinese Color Nest Project, CCNP 9/2017-9/2020
A large-scale program of modeling brain and behavioral trajectories for human lifespan (6–85 years old)

Research Center for Lifespan Development of Mind and Brain, CLIMB 12/2017-9/2020
Established to investigate normative development across the lifespan and brain/behavior associations in typical and atypical development

PUBLICATIONS

1. **Zhang, S.**, Liu, X., Yang, X., Shu, Y., Liu, N., Zhang, D. and Liu, Y. J. (2021). The influence of key facial features on recognition of emotion in cartoon faces. *Frontiers in Psychology*, 12: 687974. DOI: 10.3389/fpsyg.2021.687974.

2. **Zhang, S.**, Zhou, Y., Ge, L., Zeng, L., Liu, Z., Qian, W., Yang, J, Zhou, X., Wei, G. X., and Zhang, X. Y. (2021). Insomnia and somatization are predictors of post-traumatic stress disorder in pregnant women during the COVID-19 Pandemic. *Neuropsychiatric Disease and Treatment*, 2021. 17: 2539. DOI: 10.2147/NDT.S310300.

3. **Zhang, S.**, Zou, L., Chen, L. Z., Yao, Y., Loprinzi, S., Wei, G. X. (2019). The effect of Tai Chi Chuan on negative emotions in non-clinical populations: A meta-analysis and systematic review. *International Journal of Environmental Research and Public Health*, 16. PMID 31438638. DOI: 10.3390/ijerph16173033

4. Wei, G. X., Man, X. X., Ge, L. K., Yao, Y., Hu, Z. E., **Zhang, S.**, ... Zuo, X. N. (2021). 人类共情领域认知神经科学: 研究展望与应用启示[Human empathy in the field of cognitive neuroscience: Perspectives and implications]. 中国科学: 生命科学, 51(06): 702-716. DOI: 10.1360/SSV-2020-0258

5. Wei, G. X., Si, R., Li, Y., Yao, Y., Chen, L., **Zhang, S.**, ... & Perrey, S. (2020). "No pain no gain": evidence from a parcel-wise brain morphometry study on the volitional quality of elite athletes. *Brain Sciences*, 10(7), 459. DOI: 10.3390/brainsci10070459

6. Chen, L. Z., Yuan, X., Zhang, Y., **Zhang, S.**, Zou, L., Yang, L., ... & Wei, G. X. (2020). Brain functional specialization is enhanced among Tai Chi Chuan practitioners. *Archives of Physical Medicine and Rehabilitation*, 2020. 101(7). DOI: 10.1016/j.apmr.2020.02.005

7. Li, L., **Zhang, S.**., Cui, J., Chen, L. Z., Wang, X., Fan, M., & Wei, G. X. (2019). Fitness-Dependent effect of acute aerobic exercise on executive function. *Frontiers in Physiology*, 10, 902. DOI: 10.3389/fphys.2019.00902

ACADEMIC TALKS

- The 11th National Academic Conference of Sports Psychology, Beijing Sport University, 22/8/2018
  Topic: Correlation between physical activity and cerebral cortex thickness in 125 Chinese adolescents

- Collaborative Innovation Center of Assessment toward Basic Education Quality, Beijing Normal University 25/12/2017
  Topic: Fitness-dependent effect of acute aerobic exercise on executive function

WORKSHOP AND TRAINING

Workshop:

- Brain Hack (Beijing & Nanning): Research reliability 12/12/2020-18/12/2020
- Brain Hack (Beijing): Imaging developing brain-mind association in vivo 13/4/2018-14/4/2018

Training:

- The 4th advanced EEG data analysis in Beijing 19/7/2021-25/7/2021

LANGUAGE SKILLS

Mandarin (first language), English (fluent)

INTERSHIPS AND ACADEMIC SERVICES

Engineer of brain and cognitive science: Internship in Tomorrow Advancing Life (NYSE: TAL) 5/2020-7/2020

- Project 1: Reasoning ability training for children
- Project 2: Attention training for children

Engaged in design of training program in children's reasoning/attention ability, edit and revise questions of children's reasoning ability test, map the attention network of brain

Tutor for the graduate entrance examination 7/2018-12/2018
Advisor in psychology

School Psychologist: Internship in Xingji-River Middle School of Jinan 5/2015-6/2015
Group psychological counseling and individual psychological counseling for students

Experimenter: Internship in the affiliated Kindergarten of UJN 5/2013
Children's data collection about their development of cognitive function