

JING ZHANG

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Education

University of California, Irvine
PhD student, Cognitive Neuroscience

Irvine, CA
2018 - present

Furman University
B.S. in Psychology and Gender Studies

Greenville, SC
2012 - 2016

Skills

- Programming Languages: Matlab, Python.
- Brain Imaging Skills: fMRI data collection and processing, related software packages including SPM, CONN, and FSL. EEG/PSG techniques and signal processing, sleep stage scoring, related software packages including BrainVision Analyzer, and EEGLAB
- Statistics: SPSS, R Studio, and OpenMeta(Analyst)
- Languages: Chinese, English
- Other: E-Prime, operant conditioning, rodent handling, and rodent surgery.

Honors and Awards

- Burt's Scholar in Psychology -2016
- Award for Excellence in Women's, Gender and Sexuality Studies -2016
- Furman Advantage Fellowship - \$3500, 2015
- Psi Chi honor society -2013

Relevant Experiences

Sleep and Cognition Lab, Department of Cognitive Sciences, University of California, Irvine Irvine, CA
Graduate Student PI: Sara Mednick 09/2018 to present

- Collect and analyze behavioral, physiological, and EEG data
- Train undergraduate research assistants in literature review, EEG step-up, and data analysis
- Develop and test novel research ideas, present at national and international conferences

Seminowicz Pain Imaging Lab, Department of Neural and Pain Sciences, University of Maryland Baltimore, MD
Clinical Study Coordinator PI: David Seminowicz 07/2016 -07/2018

- Set up equipment for simultaneous EEG-fMRI system, carried out the pilot study successfully
- Performed data collection via interview, MRI, EEG, psychophysical testing, and questionnaires
- Checked validity and accuracy of data ensuring compliance with quality control requirements
- Processed and analyzed neuroimaging and behavioral data, presented results at an international conference
- Coordinated the research study team including facility reservation, subject sampling and staff scheduling
- Established and maintained database files and reports on progress of programs, studies, and projects

Sleep Lab, Department of Psychology, Furman University Greenville, SC
Research Assistant PI: Erin Wamsley 05/2015-07/2016

- Conducted a collaborative research project to investigate EEG signatures of memory reactivation and consolidation

- Designed and conducted an independent research project on neural correlates of dreaming
- Composed fellowship application, recruited and ran participants, applied low-density EEG electrodes and high-density EEG cap, administered questionnaires and behavioral tasks, scored sleep stages based on EEG patterns, transcribed and coded dream reports, processed and interpreted data

Behavioral Neuroscience Lab, Department of Psychology, Furman University
 Research Assistant PI: Onarae Rice

Greenville, SC
 01/2014 - 01/2015

- Designed and conducted a research project exploring the effect of repeated exposure to toluene in adolescence rats on the possibility of intravenous cocaine abuse in adulthood
- Performed jugular catheterization surgeries on rats, wrote a program using MED-PC to run the self-administration chambers, maintained and operated self-administration chambers, collected and analyzed data, documented and presented research process in conference

Learning Center, Furman University
 Academic Tutor

Greenville, SC
 01/2013-12/2015

- Provided assistance in understanding course material for fellow students
- Revised writing assignments, answered questions, and explained difficult concepts

Publication

Zhang, J., Yetton, B., Whitehurst, L., Naji, M., Mednick, S. (2020). The Effect of Zolpidem on memory consolidation and sleep features over a night of sleep. *SLEEP*. doi: 10.1093/sleep/zsaa084

Seminowicz, DA. Burrowes, S., Kearson, A., **Zhang, J.**, Krimmel, S., Samawi, L., Furman, A., Keaser, M., Gould, N., Magyari, T., White, L., Goloubeva, O., Goyal, M., Peterlin, L., Haythornthwaite, J., (2020). Enhanced mindfulness based stress reduction (MBSR+) in episodic migraine: a randomized clinical trial with MRI outcomes. *PAIN*. doi: 10.1097/j.pain.0000000000001860

Furman AJ., Prokhorenko M., Keaser ML., **Zhang, J.**, Chen, S., Mazaheri, A., Seminowicz, DA. Sensorimotor peak alpha frequency is a reliable biomarker of pain sensitivity. *bioRxiv*. January 2020:613299. doi:[10.1101/613299](https://doi.org/10.1101/613299)

Zhang, J., Wamsley, E.J. (2019). EEG predictors of dreaming outside of REM sleep. *Psychophysiology*. <https://doi.org/10.1111/psyp.13368>

Posters and Talks

Zhang, J., Yetton, B., Whitehurst, L., Naji, M., Mednick, S. (2019). The Effect of Zolpidem on memory consolidation and sleep features over a night of sleep. Poster presented at World Sleep Annual Meeting, Vancouver, Canada.

Zhang, J., Kearson, A., Burrowes, S., Samawi, L., Peterlin, B.L., Goyal, M., Haythornthwaite, J.A., Seminowicz, D.A. (2018). Effects of sleep quality, pain catastrophizing, anxiety and depression on pain-related activation for migraine patients and healthy controls. Poster presented at Society for Neuroscience Annual Meeting, San Diego, CA.

Furman, AJ., Krimmel, S., **Zhang, J.**, Keaser, R., Gullapalli, R., Seminowicz, D.A. (2018). The relationship of Sensorimotor Peak Alpha Frequency to regions across the brain is modulated by pain. Poster presented at Society for Neuroscience Annual Meeting, San Diego, CA.

Black, J., **Zhang, J.**, Seminowicz, D., & Quito, R. (2017). Painful thermal stimulation to the face and arm produces different patterns of brain activity in migraine patients and controls. Poster presented at American Pain Society Annual Meeting, Pittsburgh, PA.

Zhang, J., Wamsley E.J. (2017). Electrophysiological markers of successful dream recall. Poster presented at SLEEP, Boston, MA. <https://doi.org/10.1093/sleepj/zsx050.228>

Summer, T., **Zhang, J.**, Humiston, G., Piepert, A., & Wamsley, E. (2015). The effect of cognitive load on memory consolidation during a short period of waking rest. Poster presented at Society for Neuroscience Annual Conference, Chicago, IL.

Zhang, J., Laurenzo, W., Hayden, J., & Rice, O., (2015). Will repeated exposure to toluene in adolescent rats increase the possibility of intravenous cocaine abuse in adulthood? Poster presented at Furman Engaged and Furman-Davison Summer Psychology Research Conference, Greenville, SC.

Graveline, Y., Hickey, P., **Zhang, J.**, Summer, T., Wood, S., Peipert, A., Stickgold, R., Murphy, M., & Wamsley, E. (2015). EEG signatures of memory reactivation and consolidation. Poster presented at Furman-Davison Summer Psychology Research Conference, Greenville, SC.

Laurenzo, W., **Zhang, J.**, Hayden, J., Rice, O., (2014). An investigation of the effects of single prolonged stress on male sprague dawley rat's propensity to self-administer cocaine. Poster presented at Society for Neuroscience Annual Conference, Washington, D.C.

Teaching Experience

- Teaching assistant (Winter 2020): Clinical Psychology
- Teaching assistant (Fall 2019): Experimental Psychology
- Teaching assistant (Spring 2019): Brain Disorders
- Teaching assistant and section leader (Fall 2018, Winter 2018, Summer, 2019): Introduction to Psychology