

Han Jia

hanjia@uga.edu | (762)-772-9198

POSITION

University of Georgia, Athens, GA
Graduate Teaching Assistant/Instructor of Record Fall 2022-Present
Doctoral candidate in Behavioral and Brain Sciences, UGA

EDUCATION

Sichuan Normal University, Sichuan, China
Master of Science, Experimental psychology, Fall 2019-Spring 2022
Cumulative GPA: 3.53/4.00

SUMMARY

Highly skilled researcher with a strong foundation in neurophysiological data analysis, signal processing, and experimental design. Expertise in analyzing EEG/ERP data using programming languages like MATLAB, R, and Python. Demonstrated success in leading complex projects, employing advanced statistical methods, and presenting findings at international conferences. Passionate about leveraging technical and analytical skills to contribute to industry research and development.

TECHNICAL SKILLS

Programming Languages: MATLAB, Python, R

Data Analysis Techniques: Regression Analysis, Multilevel Modeling, Time-Frequency Analysis, Wavelet Analysis

Statistical Methods: Generalized Linear Models (GLM), Mixed-Effects Modeling, ANOVA, ANCOVA

Specialized Tools: EEG/ERP Analysis, Signal Processing, Continuous Wavelet Transform (CWT), tDCS Methods, Qualtrics

Software: SPSS, E-Prime, PsychoPy

Other Skills: Experimental Design, Data Visualization, Statistical Reporting

PROFESSIONAL AND RESEARCH EXPERIENCE

Doctoral Program (Fall 2022 – Present)

Project: Brain Activity in Emotional Video vs. Picture Study

- Developed and implemented "hamp" analysis to compare emotional video evoked averaged EEG with emotional picture-evoked ERPs.
- Leveraged MATLAB and R for regression modeling, data preprocessing, feature extraction, and statistical analysis.
- Explored temporal dynamics of emotional stimuli through advanced data visualization techniques.

Project: Evoked related Potentials in emotional scene perception (Emotion Perception)

- Analyzed the emotional modulation of Event-Related Potentials (EPNs), focusing on the role of body presence using EEG data.

- Applied multilevel modeling to account for within-subject variability and maximize analytical rigor.
- Performed ERP segmentation and statistical testing in MATLAB and R.

Project: Event related desynchronization in emotional scene perception

- Applied Wavelet analysis to investigate alpha- and beta-event-related desynchronization during emotional scene perception.
- Conducted regression analyses to identify significant predictors of EEG desynchronization patterns.
- Presented findings at the 2023 Annual Meeting of the Society for Psychophysiological Research.

Project: Scenes Features in Emotional Perception

- Collected and preprocessed EEG data to investigate how scene features influence emotional perception.
- Explored and applied multiple analysis methods, including ERP, Wavelet analysis, and Time-Frequency techniques, to extract meaningful insights.
- Identified key findings linking specific scene characteristics to variations in neural responses and emotional modulation.

Master’s Program (Fall 2019 – Spring 2022)

Project: N270 component reflects implicit processing of gaze direction

- Designed experimental procedures to examine implicit gaze perception using ERP (N270, N400) and Time-Frequency analyses.
- Conducted multilevel modeling and regression analyses on EEG data for 43 participants using R.

Project: Face Mask Influence on Social Attention in Threat Context (during Covid-19)

- Executed experiments investigating surgical mask effects on task-relevant social attention and sex-dependent outcomes.
- Utilized regression models and ANOVA to assess behavioral data, integrating findings with statistical reporting tools..

Project: The impact of cathodal and anodal transcranial direct current stimulation (tDCS) on the right temporal-parietal junction in gaze perception.

- Designed experiments assessing cathodal and anodal tDCS effects on the right temporal-parietal junction.
- Combined multilevel modeling with behavioral paradigms to examine gaze processing mechanisms.

Project: The perception of the cone of direct gaze of autism spectrum disorder children

- Collected and analyzed behavioral data from ASD children, administering IQ testing using the Wechsler Intelligence Scale.
- Conducted regression and mixed-effects modeling to identify patterns in gaze perception..

RELEVANT COURSEWORK

Doctoral Program (Fall 2022 – Present)

1. **PSYC 6420: Advanced Experimental Psychology:** University of Georgia. Grade: A
2. **PSYC 6430: Applied Regression:** University of Georgia. Grade: A

Master’s Program (Fall 2019 – Spring 2022)

1. **Application of Brain Imaging Methods:** Sichuan Normal University. Grade: 88/100
2. **Scientific Methods and Academic Writing:** Sichuan Normal University. Grade: 89/100
3. **Data analysis in Psychological Science:** Sichuan Normal University. Grade: 95/100
4. **Psychological Regulation of Emotion:** Sichuan Normal University. Grade: 92/100

AWARDS

1. **John and Mary Franklin Foundation travel award** (2024).

PRESENTATIONS

1. **Event Related Desynchronization in Emotional Scene Perception.** Poster presented at the at the 2023 and 2024 Annual Meeting of the Society for Psychophysiological Research

PUBLICATIONS

1. Jia H, Wang Q, Feng X, Hu Z. Face mask reduces gaze-cueing effect. *Sci Rep.* 2023 Aug 12;13(1):13160. doi: 10.1038/s41598-023-40195-5. PMID: 37573401; PMCID: PMC10423210.
2. Farkas, Andrew & Gehr, Matthew & Jia, Han & Sabatinelli, Dean. (2024). Measuring Realistic Emotional Perception: A Comparison of Multimodal Video-ssVEP and Naturalistic Scene-LPP. 10.22541/au.172511071.15233534/v1..
3. Zheng, Y., Shi, Y., Jia, H., Gao, S.*, & Hu, Z.* (2021). Intranasal oxytocin enhances the perception of ambiguous averted gaze in women but not in men. *Psychopharmacology*, 238(7), 2021-2029. doi:10.1007/s00213-021-05828-5.

TEACHING EXPERIENCE

1. **PSYC3980: Research Design in Psychology:** University of Georgia (Fall 2022 – Fall 2023)
2. **PSYC4120: Sensation & Perception:** University of Georgia (Fall 2024)