

# Shanshan Zhu

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## EDUCATION

<b>Nanjing Normal University</b> M.Sc. in Psychology <i>Core Courses: Experimental Psychology, R Programming in Psychology, Advanced Research Methods, Bayesian Statistics</i>	<i>Nanjing, China</i> <i>Exp. Jun 2026</i>
<b>Hangzhou Normal University</b> B.A. in Health Services and Management <i>Core Courses: Medical Statistics, Epidemiology, Clinical Medicine, Behavioral Medicine</i>	<i>Hangzhou, China</i> <i>Jun 2023</i>

## RESEARCH EXPERIENCE

<b>A Cognitive Ontological Dataset for Self-Referential Processing</b> <i>Principal Investigator</i>	[Science Data Bank] <i>Jan 2023 – Present</i>
<ul style="list-style-type: none"><li>• Curated and shared an fMRI dataset on self-referential processing.</li><li>• Conducted systematic literature review, data standardization, and codebook revision.</li><li>• Expanded dataset to include psychiatric populations and lifespan samples.</li></ul>	
<b>Neuroimaging Meta-Analysis of Self-Referential Processing Across Disorders</b> <i>Lead Researcher</i>	<i>Nov 2024 – Present</i>
<ul style="list-style-type: none"><li>• Conducted coordinate-based meta-analysis (ALE) using <b>NiMARE</b>.</li><li>• Performed visualization with <b>Nilearn</b> and <b>Connectome Workbench</b>.</li><li>• Pre-registered on OSF: <a href="https://osf.io/8rx4a">osf.io/8rx4a</a>.</li></ul>	
<b>Python-Based fMRI Data Analysis Chinese Pipeline</b> <i>Lead Researcher</i>	[GitHub] <i>Sep 2024 – Present</i>
<ul style="list-style-type: none"><li>• Developed open-source pipeline for: DICOM–NIfTI (BIDS, heudiconv), surface mapping, preprocessing (fMRIPrep), QC (MRIQC), GLM and MVPA (Nilearn, Brainstats).</li><li>• Authored tutorials tailored for non-native English speakers.</li></ul>	
<b>Self-Reference Modulates Stimulus Representations in Visual Cortex</b> <i>Undergraduate Thesis Project</i>	<i>March 2024 – Present</i>
<ul style="list-style-type: none"><li>• Designed and programmed block-design tasks in <b>PsychoPy</b>.</li><li>• Conducted fMRI data acquisition as scanner operator.</li><li>• Performed MVPA analysis of visual cortical representations.</li></ul>	
<b>The Impact of Legal Professional Education on Moral and Legal Reasoning</b> <i>Research Assistant</i>	<i>Sep 2023 – Present</i>
<ul style="list-style-type: none"><li>• Conducted preprocessing and GLM analysis using <b>Nilearn</b>.</li><li>• Performed gPPI analysis with <b>MATLAB (CONN toolbox)</b>.</li><li>• Contributed to group-level interpretation and manuscript.</li></ul>	

## TEACHING EXPERIENCE

<b>Bayesian Methods in Psychology</b> <i>Supervisor: Prof. Chuan-Peng Hu, Nanjing Normal University</i>	Teaching Assistant	<i>Spring 2024</i>
<ul style="list-style-type: none"><li>• Led tutorials and labs on Bayesian modeling using <b>PyMC</b>.</li><li>• Provided technical support to graduate students.</li></ul>		

## PROFESSIONAL EXPERIENCE

<b>Chinese Child Brain Development Project</b>	MRI Technician	<i>Oct 2024 – Present</i>
<ul style="list-style-type: none"><li>• Certified MRI operator; acquired structural, functional, and diffusion scans for children (ages 6–8).</li><li>• Ensured longitudinal neuroimaging data quality control.</li></ul>		
<b>Institute of Psychology, Chinese Academy of Sciences</b>	Trainee	<i>Jul 2024</i>
<ul style="list-style-type: none"><li>• Completed one-week intensive training in <b>FSL</b> neuroimaging analysis.</li></ul>		
<b>NetEase Intelligence</b>	AI Trainer Intern	<i>May – Sep 2023</i>

- Annotated and curated NLP corpora for LLM training.
- Improved dataset quality using cognitive-linguistic principles.

Affiliated Hospital of Zhejiang University School of Medicine (Sir Run Run Shaw Hospital)  
Intern

Research  
Jul – Dec 2022

- Assisted with research administration, ethics review, and documentation.

Affiliated Hospital of Hangzhou Normal University

Medical Observer

Jul – Sep 2021

- Gained early clinical exposure in psychiatry and behavioral health units.

CONFERENCES AND PRESENTATIONS

24th National Congress of Psychology

Oral Presentation: *Abnormal Brain Activity in Self-Referential Processing Among Psychiatric Patients*

Chengdu, China  
Oct 2023

Cognitive Neuroscience Summer Hackathon

Project Leader

Hangzhou, China  
Aug 2024

- Led Python-based fMRI pipeline development project.

Cognitive Neuroscience Summer Hackathon

Contributor

Shenzhen, China  
Aug 2025

- Contributed to EEG-based emotion decoding project.

ACADEMIC SERVICE

Chinese Open Science Network

2023 – Present

- Academic Secretary: supported planning and organization of scholarly activities.
- WeChat Content Editor: produced and published articles promoting open science.

TECHNICAL SKILLS

- **Programming:** Python (primary), R, MATLAB
- **Neuroimaging:** fMRIPrep, MRIQC, Connectome Workbench, FSL (certified), ALE meta-analysis, NiMARE, Nilearn, Brainstats
- **Tools:** GitHub, Docker, Jupyter, LaTeX, Microsoft Office
- **Languages:** English, Chinese (native)

INTERESTS

Long-distance running (half-marathons), rock climbing