Zhiyan Yang, MSc

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EDUCATION EXPERIENCE

University of Notre Dame 08/2026—Present
Department of Psychology, College of Arts and Letters
Doctoral student in Clinical Psychology
Advisors: Ivan Vargas, Ph.D.

Columbia University 09/2022—05/2024
Department of Biobehavioral Sciences, Teachers College
M.S. in Neuroscience and Education
Advisors: Karen Froud, Ph.D., Stan Colcombe, Ph.D., & Anna MacKay-Brandt, Ph.D.
Thesis: *Investigating Verbal Memory Retrieval and Attention Control Mechanisms through Verbal Fluency Tasks and Eye-tracking Technique*

New York University 08/2017—05/2021
Department of Psychology, College of Arts and Sciences
B.A. in Psychology

PUBLICATIONS

1. Glennon, E., **Yang, Z.,** Stilling, J. (2026). Case Report: Anodal DLPFC-tDCS for Refractory Post-Traumatic Cognitive Fatigue in the Hypometabolic Brain. *Frontiers in Human Neuroscience*. https://doi.org/10.3389/fnhum.2026.1919849
2. Shain, A. I., **Yang, Z.**, Xiang, W., Kang, S., & Singh, J. R. (2026). Diagnostic Advantages of Proximal Sacroiliac Joint Injections for Relief of Mechanical Back Pain: A Retrospective Observational Cohort Study. Cureus. https://doi.org/10.7759/cureus.116007

POSTER PRESENTATIONS

1. **Yang, Z.**, Himelfarb, A., Keenan, A., Gunning, F. M., Toglia, J. F., & Jaywant, A. (Jun 2026). *Sleep Disturbances Amplify Depression-Related Cognitive Complains After Stroke*. SLEEP 2026. Baltimore, MD.

2. **Yang, Z.**, Himelfarb, A., Keenan, A., Gunning, F. M., Toglia, J. F., & Jaywant, A. (Feb 2026) *Online vs General Self-Awareness After Stroke: Differential Links with Depression Symptom Clusters and Cognition*. The International Neuropsychological Society. Philadelphia, PA.

3. **Yang, Z.,** Froud, K., MacKay-Brandt., A., & Colcombe., S. (Oct 2025) *Investigating Verbal Memory Retrieval and Attention Control in Verbal Fluency Tasks Using Eye-Tracking Technique*. APS Global Psychological Science Summit. Virtual.

4. **Yang, Z.**, Himelfarb, A., Gunning, F. M., Toglia, J. F., & Jaywant, A. (Sep 2025) *Clusters of Post-Stroke Depressive Symptoms Differentially Associate with Everyday Functional Outcomes*. NYP Rehabilitation Research Day 2025. New York, NY.

5. Kerner, N., Luchsinger, J. A., Devanand, D. P., & Goldberg, T. E., **Yang, Z.**, Cha, M., Martinez, D. (Nov 2024) *Utility of PROMIS Sleep Short Forms in Alzheimer's Disease: Reliability and Health*

Disparities. AAIC Advancements: Exploring Equity in Diagnosis. Chicago, IL.

6. Cha, M., **Yang, Z**., Burris, E., Espiritu, M., Goldberg, T., Devanand, D. P., & Kerner, N. A. (May 2024). *Examining the Effect of Sleep -Wake Disturbances on Immediate and Delayed Recall in Non-Demented Older Adults.* American Geriatric Society. Virtual.

7. **Yang, Z**., Xu, E., & Zhou, X. (May 2024). *Physical Exercise Reduces False Memory Formation to Varying Degrees as Moderated by the Severity of Social Jetlag: Behavioral and Neural Evidence.* Association for Psychological Sciences. San Francisco, CA.

8. Zhou, X., **Yang, Z**. (May 2024). *The Impact of Socioeconomic Status and Vocabulary Size on Speech-in-Noise Comprehension.* Association for Psychological Sciences. San Francisco, CA.

9. Cha, M., **Yang, Z**., Burris, E., Espiritu, M., Goldberg, T., Devanand, D. P., Kerner, N. A. (April 2024). *Examining the Effect of Sleep-Wake Disturbances on Immediate and Delayed Recall in Non-Demented Older Adults.* Institute of Psychological Science and Practice at Teachers College, Columbia University. New York, NY.

10. Xu, E., **Yang, Z**., & Zhou, H. (Apr 2024). *Evaluating Physical Symptoms in Patients with Anxiety in Chinese Population.* Anxiety & Depression Association of America. Boston, MA.

MANUSCRIPTS UNDER REVIEW

3. Kerner, N., Cha, M., **Yang, Z.,** Luchsinger, J. A., Devanand, D. P., & Goldberg, T. E. *Fatigability, Sleep-Related Impairment, and Cognition in Older Adults at Risk for Obstructive Sleep Apnea*. Alzheimer's and Dementia. (Under revision)

MANUSCRIPTS IN PREPARATION

1. **Yang, Z.**, Himelfarb, A., Gunning, F. M., Toglia, J. F., & Jaywant, A. *Sleep Disturbances Amplify Depression-Related Cognitive Complains After Stroke*.

2. **Yang, Z.**, Himelfarb, A., Gunning, F. M., Toglia, J. F., & Jaywant, A. *Clusters of Post-Stroke Depressive Symptoms Differentially Associate with Everyday Functional Outcomes*.

3. Jaywant, A., **Yang, Z.**, Himelfarb, A., Keenan, A., Gunning, F. M., & Toglia, J. F. *The Association between Cognitive Impairment, Functional Cognition, and Patient-reported Measures in Chronic Stroke.*

4. Kerner, N., Luchsinger, J. A., Devanand, D. P., Goldberg, T. E., **Yang, Z., &** Cha, M., *Utility of PROMIS Sleep Short Forms in Alzheimer's Disease: Reliability and Health Disparities.*

RESEARCH EXPERIENCE

Weill Cornell Medicine, Department of Rehabilitation Medicine 07/2024—05/2026

Cognition Rehabilitation Lab

PIs: Abhishek Jaywant, Ph.D. & Joan Stilling, M.D., M.S.

Role: Research Assistant

Project 1: Efficacy and Target Engagement of a Digital Intervention to Improve the Depression-Executive Dysfunction Syndrome After Stroke (NIMH K23 MH129849)

- Developed and presented independent research projects on (1) post-stroke depressive symptoms and everyday functioning and (2) depression modulates self-awareness of cognitive

deficit.

- Coordinated recruitment, screening, and consent of older adults with depression and cognitive impairment for a longitudinal RCT, communicated effectively with inpatient and outpatient post-stroke participants using plain-language and accessibility adaptations.
- Administered and scored standardized neuropsychological assessments under established protocol and performed quality check.
- Conducted structured clinical interviews to assess participants' levels of depression, anxiety, and suicidal ideation.
- Facilitated fMRI sessions, including participant preparation, safety screening, and coordination with multiple departments and teams.

Project 2: Home Treatment of Post-stroke Fatigue with Transcranial Direct Current Stimulation (tDCS) (AHA 25CDA1449102)

- Administered MoCA and collected patient-reported outcomes (fatigue, anxiety, depression, sleep quality) and computerized measures for screening and post-treatment evaluation.
- Supported home-based tDCS (electrode placement, device setup, adherence checks, remote troubleshooting, and follow-up) to ensure protocol fidelity.

General responsibilities:

- IRB/regulatory and operations: developed protocols, recruitment scripts, and participant materials; prepared IRB submissions/amendments; registered and reported trials on ClinicalTrials.gov; maintained regulatory logs; coordinated with study sponsors.
- Data management: built and administered REDCap databases; cleaned, de-identified, and QC datasets; supported qualitative coding and quantitative analyses; contributed to manuscripts and scientific presentations.
- Team/Clinical coordination: reviewed medical records and generated chart notes; communicated across departments to execute study workflows; documented all encounters per HIPAA.
- Participant outreach & recruitment: partnered with the PI on outreach and recruitment strategy; screened and recruited from inpatient and outpatient settings; conducted phone outreach, reminders, and follow-ups to support accrual and retention.
- Academic Events: planned and executed department events and academic symposium (agendas, logistics, paperwork), coordinating cross-institution support.

Columbia University, Department of Psychiatry 09/2023—Present

Sleep Research Lab, Memory Disorder Clinic, New York State Psychiatric Institute

PI: Nancy A. Kerner, M.D.

Role: Research Assistant

Project: Assessment of Sleep and Circadian Rhythms in Elderly Persons with Cognitive Concerns Evaluated for Alzheimer's Disease and Related Dementias (ADRD) (NIH K23 AG066945)

- Skilled in extracting, scoring, and interpreting Actigraphy data of 70+ subjects and contributed towards ADRD-specific actogram scoring manual.
- Developed independent research on daily sleep-related impairment variability and in relation to objective sleep and cognition.
- Trained undergraduate trainees in Actogram data collection, exportation, and scoring (Philips Actiware) and subsequent statistical analysis.
- Performed data cleaning and quality checking in two NIH-funded studies, harmonizing all measurements into analysis-ready datasets, prepared data for grant proposals.

The Nathan S. Kline Institute for Psychiatric Research 07/2023—05/2024

Design, Acquisition & Neuromodulation Lab & Brain Aging and Mental Health Lab

PIs: Stan Colcombe, Ph.D. & Anna MacKay-Brandt, Ph.D.

Role: Thesis Student

Master's thesis project: Designed an online verbal-fluency task using eye-tracking technique and language analysis models to examine attention switching and memory retrieval

- Designed, deployed, and validated an online verbal fluency task with audio capture and webcam-based eye-tracking.
- Conducted literature review on verbal memory retrieval mechanisms and attention control.
- Prepared IRB application and related human research protocols and ethics.

Columbia University, Department of Psychiatry 10/2022—07/2023

Singh Lab, Clinic for Mood and Personality Disorders, New York State Psychiatric Institute

PIs: J. John Mann, M.D. & Tarjinder Singh, Ph.D.

Role: Research Associate

Project: Examined links among suicidality, genetics, and premortem mental disorders in a 30-year post-mortem brain database

- Curated, harmonized, and analyzed demographic, psychiatric, genetic, and brain-tissue data in RStudio, developed proficiency in large-scale dataset processing.
- Delivered written reports and visualization of the dataset; presented findings to faculty and collaborators at monthly departmental meetings to support GWAS sequencing sample selection.

Chinese Academy of Sciences, Institute of Psychology 03/2021—04/2022

Social & Cognitive Neuroscience Lab

PIs: Yan Mu, Ph.D. & Jia-Xi Wang, Ph.D.

Role: Research Assistant

Project 1: ERP study of financial decision-making in a trust game with human individuals, groups, and computer partners

- Collected EEG data using a 32-channel system; managed full workflow (setup, impedance, monitoring, debrief).
- Analyzed behavioral data in SPSS and resting-state EEG in MATLAB, including pre-processing (filtering, artifact rejection/ICA), frequency analyses, and source localization; built reproducible analysis scripts.
- Developed an individual project on resting-state EEG to explore the neural correlates of interpersonal trust and social norms.

Project 2: Oxytocin modulates conflict processing in social and non-social conditions with Stroop tasks

- Developed and validated a social Stroop paradigm in E-Prime; coordinated logistics and contributed to protocol development for a double-blind, placebo-controlled trial.
- Collected behavioral data and administered intranasal oxytocin/placebo.

Project 3: Examined how regional cultural tightness–looseness is reflected in social media posts

- Designed and deployed nationwide qualitative and quantitative questionnaires; proposed a 40-item Chinese lexicon for cultural tightness–looseness index in mainland China (adapted from the English list across four dimensions).

HONORS & SCHOLARSHIPS

---	University Presidential Fellowship at University of Notre Dame	2026
$5910	Teachers College Neuroscience and Education Program Scholarship	2024
$550	American Academy of Clinical Neuropsychology Grad School App Scholarship	2024
$500	Teachers College the Provost's Grant for Conference Presentation & Professional Dev	2024
$5,600	Teachers College Merit-based Entrance Scholarship	2022
---	Dean's list, College of Arts and Sciences, New York University	2019-2021

CERTIFICATES & TRAININGS

- Certified Montreal Cognitive Assessment (MoCA) Rater (ID: USYANZH710747411-01)
- CITI Good Clinical Practice (GCP)
- CITI Basic Courses for Biomedical & Social and Behavioral Researchers and Staff
- Research Electronic Data Capture (REDCap) Training

LEADERSHIP & SERVICE

Committee Member of NY Coalition for Asian American Mental Health 11/2025— Present

- Helped organize and facilitate anti-racist, community-centered mental health workshops, supporting outreach, logistics, and resource sharing among Asian American communities.
- Participated in peer supervision groups on racism, trauma, and barriers to care in Asian American communities, integrating insights into culturally responsive mental health practice.

SKILLS

Languages: Bilingual in English and Mandarin

Neuropsychological Assessment:

- NIH Toolbox-Cognition Battery, Weekly Calendar Planning Activity (WCPA), Montreal Cognitive Assessment (MoCA), Mini-Mental State Examination (MMSE), Trail Making Task A & B, Phonemic & Category Fluency, WAIS-IV Digit Span, SDMT, Stroop Task, Test of Variables of Attention (T.O.V.A).

Neuropsychiatric Interviews/Questionnaires:

- MADRS, C-SSRS, Neuro-QoL, SS-QoL, FrSBe, PHQ-9, GAD-7, mRS, ERQ, BADS-SF, Rumination Scale, ADL, ESS, PSQI, FSS, and PROMIS Short Forms.

Technical Skills:

- Data Analysis & Programming: R Studio; SPSS; Python (Jupyter Notebook); MATLAB (EEGLAB, Psychtoolbox); Jamovi; Excel (macros); HTML/CSS
- Behavioral & Neural Data Collection: Actigraphy Motion Biosensors; 32-Channel EEG; Tobii & Gazepoint Eye-Tracker; Pavlovia; E-Prime; Psychopy; Gorilla Online Experiment
- Others: REDCap; Qualtrics, EPIC(EMR); Endnote; Canva; Photoshop; Adobe Premiere

PROFESSIONAL MEMBERSHIPS

- Asian Neuropsychological Association
- International Society to Advance Alzheimer's Research and Treatment
- Association for Psychological Science
- American Geriatrics Society
- American Psychological Association
- The International Neuropsychological Society