

Title of the position: Postgraduate Associate Position in Computational Psychiatry

Department and school: Department of Psychiatry, School of Medicine

Anticipated Appointment Date: February/March 2026 – June 2027

<https://postdocs.yale.edu/posts/2026-01-12-postgraduate-associate-position-in-computational-psychiatry-department-of>

Introduction

The Yale Computational Psychiatry Unit (Y-CPU; <https://www.neurocpu.org>), led by Dr. Gu, is an integral part of the Center for Brain and Mind Health, The Wu Tsai Institute, and Departments of Psychiatry and Biomedical Informatics and Data Science, at the Yale School of Medicine. Currently located at 40 Temple Street, the Y-CPU encompasses over 1,000 square feet of dedicated office space, in addition to multiple shared conference rooms and testing rooms. The unit offers research expertise and training opportunities in computational psychiatry, a nascent field that aims to refine mechanisms understanding and optimize treatment for mental health using computational tools, with a particular focus on developing ecologically valid computational frameworks and models. Our research uses both theory-driven models of cognition and neural activities and data-driven predictive modeling for precision medicine. In addition to our core research questions and mission, the unit will also serve as a nexus between multiple branches and divisions and facilitate the use of computational modeling for psychiatric conditions across a range of techniques and modalities, including functional MRI, EEG, intracranial recording, neuromodulation, and so on.

Overview of the position

- Education: The postgraduate associate will learn about:
 - Theories and methods in computational psychiatry
 - Mental health and substance use assessments and evaluations
 - Neural data collection with human participants
- Training: The position will provide extensive computational and clinical research experience. There are opportunities for career development through conferences, lectures, didactics, and participation in clinical research study visits. Candidates also have opportunities to receive peer mentorship to refine career goals and select opportunities for further training. Specific training can include:
 - Building knowledge in fields related to substance use disorders and depression
 - Recruitment/enrollment/retention of study participants
 - Design and maintenance of online databases
 - Computational psychiatry principles and analytical approaches
 - Written and oral communication of results
 - Developing scientific writing skills
- Mentoring: The candidate will receive mentoring from Dr. Xiaosi Gu directly. The candidate will meet with Dr. Gu weekly to discuss his/her progress and productivity. The candidate will also receive mentoring from members of the lab. The candidate will participate and present at weekly journal clubs and have opportunity to learn about topics/issues in computational psychiatry.

Qualifications

- Bachelor's degree required; Master's degree preferred but not required
- Prior experience working with human participants required
- Prior experience with fMRI data collection preferred but not required
- Prior experience working with clinical populations (psychiatric and/or substance use disorders) preferred but not required
- Excellent organizational, communication, and teamwork skills
- Strong interest in psychiatry and neuroscience
- Motivation to pursue a research-oriented career in psychiatry, clinical psychology, or neuroscience
- Prior experience with programming (e.g. Python, R, JavaScript, Matlab) preferred but not required
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Process to Apply:

Interested applicants should submit the following materials to xiaosi.gu@yale.edu:

- Curriculum vitae (CV)
- Cover Letter (maximum 1 page) describing previous research experience, interest in the lab, and career goals.

Review of applications will begin immediately and will continue until the position is filled.