Website texts:

Bio:

My research combines computational modeling, behavioral methods and neural imaging to understand human memory. I am interested in how the human memory system uses its limited cognitive resources to efficiently retrieve past experiences and knowledge, and how we as researchers can design methods to improve human memory performance.

Lab:

We are jointly located in the psychology department and computer science department at Rutgers University – New Brunswick. Our lab combines computational modeling, behavioral methods and neural imaging to understand the computational principles that make human memory efficient. We compare human behavior to optimal or rational solutions of the underlying memory tasks and design methods to further improve human memory performance.

We are recruiting a graduate student to begin September 2023.

Please email qiong dot z at rutgers dot edu if you are interested in applying!

Do you share the same interests as ours?

is creative and believes the most enjoyable thing is to free one’s mind and think,

is persistent and has a strong mental power to carry things through,

is articulate and bold enough to challenge any authority with opinions and ideas,

has a strong sense of logic and thinks quantitatively and deeply,

loves programming and values systematic approaches,

enjoys doing experiments and is passionate about turning ideas into reality,

pursues one’s own vision and philosophy.

Is this the lab environment that you are looking for?

is stimulating and filled with exciting and challenging research directions,

is supportive for you to become an extraordinary and independent scientist,

makes your intellectual journey an enjoyable and fun adventure,

helps you to start with a well-formulated and interesting project if you like,

gives you freedom to explore your own ideas whenever you feel competent to fly solo,

provides you with an advisor willing to work with you closely and offer thoughtful feedback,

surrounds you with colleagues happy to brainstorm with you and critique you constructively.

Are you a good fit in joining the lab?

Given the multi-disciplinary nature of the research in the lab, past students that joined us are either 1) psychology or neuroscience students who had some training with quantitative approaches, e.g. minor in computer science, mathematics or 2) computer science or engineering students who had some experience working with human subjects. Other preferred qualifications include strong programming skills in Python or R.

Postdocs

If you’d like to explore the possibility of working with us as a postdoc, please email Lulu and talk about science. A brief introduction on who you are would be helpful, but most importantly, tell me where your scientific passion lies, why you are interested in our research, discuss a couple of papers that you’ve liked (they do not have to be our lab’s work), and explain a couple of ideas that you’ve come up with. If you comment on our work, saying something like “I found it fascinating” would be pleasant to hear, but saying something like “I had a better idea regarding blah blah” is more likely to make me curious to hear what you’ve got to say. I acknowledge that some unusually talented people prefer unusual approaches, so if you do not resonate with what I described above, feel free to contact me and impress me your way. I understand that your postdoc experience is going to be a crucial step that prepares you towards your future independent career, and we will make our best effort to pave your way, to make it your most productive years doing science, to offer you career advice, to give you various opportunities such as supervising students, getting involved in grant writing and teaching, and to help you build your own reputation in the scientific community.

Graduate students

If you’d like to explore the possibility of working with us as a graduate student, please first apply to Caltech graduate programs. We are most likely to work with students from Bioengineering, Computation and Neural Systems, Chemical Engineering, Computer Science, Electrical Engineering, and Control and Dynamical Systems. However, if you believe your background matches our research in some unique ways, any program is possible. If you apply to Bioengineering and describe your research interest related to DNA computing and molecular programming in the Statement of Purpose, your application will catch my attention. I am more likely to be impressed with you if you could articulate your scientific philosophy -- what kind of work excites you and why -- rather than simply express you enthusiasm. If you are invited for a visit, we will likely have a chance to talk about science. Tell me a project that you are most proud of or had most fun working on. Helping me to really understand one thing that you’ve done is likely to be more impressive than giving me a summary of many things. If you are admitted, feel free to drop by my office to discuss summer research and other rotation opportunities. We would always like to work with you for at least one rotation project before inviting you to join the lab, just so we get to know each other and only commit to the future if we remain mutually excited about working together.

Requirements: A bachelor’s degree in psychology, neuroscience with some quantitative training (e.g. minor or double major in computer science, mathematics or engineering); A bachelor’s degree in computer science, mathematics, engineering with some experiences in psychology research.

Preferred Qualifications: strong programming skills (in at least one of them: R and Python), familiarity with computational modeling or/and machine learning techniques

**Lab manager/research specialist opportunity @ Rutgers University**

Posted on [May 28, 2021](https://gupsychology.wordpress.com/2021/05/28/lab-manager-research-specialist-opportunity-rutgers-university/) by [gupsychology](https://gupsychology.wordpress.com/author/gupsychology/)

The graduate student will be conducting studies of how human search their memories, and design methods to further improve their recalls. Depending on qualifications/interest, the lab manager may also assist with developing computational models of memory.  For more information on research in Dr. Qiong Zhang’s lab, see [https://qiongzhang.github.io/research.html](https://secure-web.cisco.com/1UuwaB3X_dggrVrf4KWwE-SSxgVpfZzlBBOsOsdAR6mwoeWAh9-yAO2OsH5oj1eBhWIm5KSGkrWOR3YQ2dNed2qWP65xrwY4uBPaN-kI-vkgMAmggDfkGQ7H6KfAhfrW4qQ4ol4u1lRBk9nYfqJz1zGsnE1lqnYLOXeQFgmDwKpaL5YoxXYqN2OaNUCCDJrEFAMfX3HAcmcftHioocu45xqCslx-0m9f9pmrqvQACHmOoMaSz8li8Ovy47Ng6BeiAPs29MMBceUt_M7ayNRVzEk4yzjNQ7YRcpP4cQ0NRXRY1uYI4LxBwzXfnPlzCESZ9lVemB9mJgX_d9IWqU5SXR18nMSd3Wk9EkmWqyrUJHrul3Y2Dv1sMojVI3ZHTfpJnbgnks-cSwBJ5trw1BURAuq6EEoU8DHqELWRVIaIxNkJ4D3iOyZOFVH62aGfWk_nErJrryzquwFhqgEjm_sKbxw/https%3A%2F%2Fqiongzhang.github.io%2Fresearch.html)

Requirements: A bachelor’s degree in psychology, neuroscience with some quantitative training (e.g. minor or double major in computer science, mathematics or engineering); A bachelor’s degree in computer science, mathematics, engineering with some experiences in psychology research.

Preferred Qualifications:  strong programming skills (in at least one of them: R and Python), familiarity with computational modeling or/and machine learning techniques