

## Workshop

## **Neural Network Models of Human Memory**

2:30p.m. – 5:30p.m. | April 16, 2025 (Wednesday) Chamber, 11/F, The Jockey Club Tower | Centennial Campus | The University of Hong Kong



**Dr Qihong Lu**Alan Kanzer Postdoctoral Fellow
Columbia University

## **Abstract**

How does the brain represent memories with neuron-like processing units? This is an intro to neural network based memory models meant for audiences with minimal knowledge of neural networks. The goal is to discuss the idea of distributed representation of memories by covering the Rumelhart Network, the Hopfield Network, the Complementary Learning Systems framework, and modern memory-augmented neural networks (e.g., key-value memory).

Please bring a laptop to play with a few models. There will be a 1-hour-long lecture, followed by 1-1 meetings to discuss modeling ideas specific to attendees' projects.

## **About the Speaker**

Dr Qihong Lu is an Alan Kanzer Postdoctoral Fellow at Columbia University, working on neural network models of how episodic memory supports downstream tasks with Daphna Shohamy and Stefano Fusi. He earned his PhD in Cognitive Psychology from Princeton University, where he worked with Ken Norman and Uri Hasson on the influences of event structure on episodic memory.