Yudi XIE

Education and Training

Massachusetts Institute of Technology 2019, 2021-present
- PhD Student at the Department of Brain and Cognitive Sciences
- Advised by Prof. **Robert Guangyu Yang**
- Presidential Graduate Fellow

University of Science and Technology of China (USTC) 2015-2019
- B.S. in Applied Physics.
- Major in **Biophysics**, Major GPA 3.93/4.0
- Thesis: A connectome-based RNN model recapitulate C. elegans behavior and neural activities, advisor: Prof. **Quan WEN**

Center for Brain Science, Harvard University 2018
- Undergraduate research intern at Uchida Lab
- supervised by Prof. **Naoshige Uchida**

Professional Experience

CNeuro: Theoretical and Computational Neuroscience Summer School 2021
- Hosted by Tsinghua University, Beijing, China
- Teaching Assistant

Computational & Cognitive Neuroscience Summer School 2021
- Hosted by Cold Spring Harbor-Asia, Suzhou, China
- Student

CNeuro: Theoretical and Computational Neuroscience Summer School 2020
- Hosted by Tsinghua University, Beijing, China
- Student

Ongoing Works

Yudi Xie, Pengcen Jiang, & Guangyu Robert Yang. Models of flexible working memory with naturalistic stimuli. (Abstract submitted to Computational and Systems Neuroscience (COSYNE) 2022)

Pengcen Jiang, Guangyu Robert Yang, & Yudi Xie. A neural network model of attention and working memory control. (Abstract submitted to Computational and Systems Neuroscience (COSYNE) 2022)

Publications

Akiti, K., Tsutsui-Kimura, I., Xie, Y., Mathis, A., Markowitz, J., Anyoha, R., ... & Watabe-Uchida, M. (2021). Striatal dopamine explains novelty-induced behavioral dynamics and individual variability in threat prediction. bioRxiv.

Wang, Y., Zhang, X., Xin, Q., Hung, W., Florman, J., Huo, J., Xu, T., Xie, Y., Alkema, M. J., Zhen, M., & Wen, Q. (2020). Flexible motor sequence generation during stereotyped escape responses. ELife, 9, 1–27. https://doi.org/10.7554/eLife.56942

Selected Awards

McGovern Institute Travel Award	2021
BCS Burnett Graduate Student Fellowship	2021
MIT Presidential Graduate Fellow	2019
China National Scholarship	2018
Distinguished Physical Experimental Thesis Award	2018
SAMSUNG Scholarship	2017
Silver Medal, International Genetically Engineered Machine Competition (iGEM)	2016
1st Prize, National Physics Olympiad, Henan Area	2014