Yu Duan

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Education

Sep 2019 – Jun 2023	**Institute for Interdisciplinary Information Sciences, Tsinghua University** • B.S. in Computer Science and Technology (Artificial Intelligence track) • GPA 3.87/4.0, Junior year GPA 4.0/4.0

Research Experiences

Feb 2022 – Ongoing	**Human-like Capacity Limitation in Multi-system Models of Working Memory** • Advised by Prof. Robert Yang at the MIT Department of Brain and Cognitive Sciences (BCS) (Lab website link)
Jun 2022 – Sep 2022	**Hebbian and Gradient-based Plasticity Enables Robust Memory and Rapid Learning in RNNs** • Advised by Prof. Kaisheng Ma at Institute for Interdisciplinary Information Sciences (IIIS), Tsinghua University (Lab website link) • Co-advised by Prof. Yi Zhong at IDG/McGovern Institute, Tsinghua University
Mar 2021 – Jan 2022	**Modeling the Fly Olfactory System with Plastic and Compartmentalized RNNs** • Advised by Prof. Kaisheng Ma and Prof. Yi Zhong

Publication

2023	**Hebbian and Gradient-based Plasticity Enables Robust Memory and Rapid Learning in RNNs** • **Yu Duan**, Zhongfan Jia, Qian Li, Yi Zhong, Kaisheng Ma • Eleventh International Conference on Learning Representations (ICLR 2023)
2023	**Human-like Capacity Limits in Working Memory Models Result from Naturalistic Sensory Constraints** • Yudi Xie*, **Yu Duan***, Aohua Cheng, Pengcen Jiang, Christopher Cueva, Guangyu Robert Yang (*equal contribution) • Computational and Systems Neuroscience (COSYNE 2023)
2022	**Human-like Capacity Limitation in Multi-system Models of Working Memory** • Yudi Xie*, **Yu Duan***, Aohua Cheng, Pengcen Jiang, Christopher Cueva, Guangyu Robert Yang (*equal contribution) • Conference on Cognitive Computational Neuroscience (CCN 2022) • DOI: 10.32470/CCN.2022.1251-0

Honors

2022	**Scholarship for Scientific Innovation, Tsinghua University**
2021	**Scholarship for Academic Excellence, Tsinghua University**
2019	**Freshman Scholarship, Tsinghua University**
2017	**Gold Medal, National Olympiad in Informatics, China**