

# Yu Duan

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## Education

Sep 2019 – Jun 2023	<b>Institute for Interdisciplinary Information Sciences, Tsinghua University</b> <ul style="list-style-type: none"><li>B.S. in Computer Science and Technology</li><li>GPA 3.88/4.0, Junior year GPA 4.0/4.0</li></ul>
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## Research Experiences

Feb 2022 – Ongoing	<b>Human-like Capacity Limitation in Multi-system Models of Working Memory</b> <ul style="list-style-type: none"><li>Advised by Prof. Robert Yang at the MIT Department of Brain and Cognitive Sciences (BCS) (Lab website link)</li></ul>
Jun 2022 – Sep 2022	<b>Hebbian and Gradient-based Plasticity Enables Robust Memory and Rapid Learning in RNNs</b> <ul style="list-style-type: none"><li>Advised by Prof. Kaisheng Ma at Institute for Interdisciplinary Information Sciences (IIIS), Tsinghua University (Lab website link)</li><li>Co-advised by Prof. Yi Zhong at IDG/McGovern Institute, Tsinghua University</li></ul>
Mar 2021 – Jan 2022	<b>Modeling the Fly Olfactory System with Plastic and Compartmentalized RNNs</b> <ul style="list-style-type: none"><li>Advised by Prof. Kaisheng Ma and Prof. Yi Zhong</li></ul>

## Publication

2023	<b>Hebbian and Gradient-based Plasticity Enables Robust Memory and Rapid Learning in RNNs</b> <ul style="list-style-type: none"><li>Yu Duan, Zhongfan Jia, Qian Li, Yi Zhong, Kaisheng Ma</li><li>Eleventh International Conference on Learning Representations (ICLR 2023)</li></ul>
2023	<b>Human-like Capacity Limits in Working Memory Models Result from Naturalistic Sensory Constraints</b> <ul style="list-style-type: none"><li>Yudi Xie*, Yu Duan*, Aohua Cheng, Pengcen Jiang, Christopher Cueva, Guangyu Robert Yang (*equal contribution)</li><li>Computational and Systems Neuroscience (COSYNE 2023)</li></ul>
2022	<b>Human-like Capacity Limitation in Multi-system Models of Working Memory</b> <ul style="list-style-type: none"><li>Yudi Xie*, Yu Duan*, Aohua Cheng, Pengcen Jiang, Christopher Cueva, Guangyu Robert Yang (*equal contribution)</li><li>Conference on Cognitive Computational Neuroscience (CCN 2022)</li><li>DOI: 10.32470/CCN.2022.1251-0</li></ul>

## Honors

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