

Yihan Lin

(+86)188-0130-2019

linyih20@mails.tsinghua.edu.cn



WeChat ID: ordinarabbit

Personal Page: lyh983012.github.io

Education Experience

9/2020~	Ph.D. Candidate	Tsinghua University
	Center for Brain-Inspired Computing Research	
	Department of Precision Instrument	
9/2016~	Undergraduate student (B.S. degree) GPA: 3.85/4	Tsinghua University
7/2020	Major in Instruments Science and Technology	
	Department of Precision Instrument Rank: 2/62	
9/2018~	Minor Degree in CS GPA: 3.91/4	Tsinghua University
7/2020	Department of Computer Science and Technology	

Research Interests

- Neuromorphic Vision Sensing-perception System
Develop imaging, perception, and inference system based on complementary vision sensors and advanced optical system for low-latency high-performance embodied intelligence.
- Brain-inspired Learning Theorem
Propose the visual primitive-based representation theorem inspired by the human visual system, guiding adaptive visual applications in open extreme environments.
Investigate efficient training of brain-inspired spike-based learning algorithms.
- Low-level Computer Vision Algorithms
Investigate artificial intelligence-based image signal processing and low-level visual algorithms for multimodal multi-pathway data fusion.

Publications

1. Yang Z†, Wang T†, **Lin Y†**, et al, and Luping Shi, A Vision Sensor Chip with Complementary Pathways for Open-world Sensing, *Nature*, 30 May, 2024. (IF: 64.8, Q1, **Cover paper**)
2. **Lin Y**, et al. "Rethinking Pretraining as a Bridge From ANNs to SNNs." *IEEE*

Transactions on Neural Networks and Learning Systems, Early Access, 2022. (IF: 10.4, Q1)

3. **Lin Y**[†], Sun J[†], et al., “Spatiotemporal Input Control: Leveraging Temporal Variation in Network Dynamics,” in *IEEE/CAA Journal of Automatica Sinica*, vol. 9, no. 4, pp.

635-651, April 2022. (IF: 11.8, Q1)

4. **Lin Y**, Ding W, Qiang S, et al. ES-ImageNet: A Million Event-Stream Classification Dataset for Spiking Neural Networks. *Frontiers in Neuroscience*, 2021: 1546. (IF: 4.3 Q2)

5. Wu Z, Zhang H, **Lin Y**. et al. LIAF-Net: Leaky Integrate and Analog Fire Network for Lightweight and Efficient Spatiotemporal Information Processing. 2021, *IEEE*

Transactions on Neural Networks and Learning Systems, PP(99):1-14. (IF: 10.4, Q1)

Work Experience

8/2021~now Intern ISP engineer in Lynxi co., Beijing.

7/2018~now Research Assistant of CBICR in THU.

6/2023~8/2023 Intern computer vision algorithm engineer in Yealink Co., Xiamen.

9/2020~2/2021 Teaching Assistant for the class *Computer principle and Application*.

7/2019~9/2019 Research Assistant of IoF laboratory in NTU.

Social Activities

9/2019~6/2020 Chairman of Student Association for science and technology of DPI, Tsinghua University

9/2018~6/2019 Vice Chairman of Student Association for science and technology of DPI, Tsinghua University.

1/2018~2/2018 Team leader of 'Coal to Gas' research team in Wangdu, Hebei Province, P. R. China

9/2017~6/2018 Director of the office of Fujian Cultural Exchange Association of Tsinghua University.

1/2018~2/2018 Team leader of research team of targeted poverty alleviation in Ninghua, Fujian Province, P. R, China.

Honors & Awards

10/2023 Scholarship for Excellence in Social Activitiy, THU

10/2023	Comprehensive first-class scholarship for PhD studentss, THU
10/2022	Comprehensive first-class scholarship for PhD Candidates, THU
10/2021	Comprehensive second-class scholarship for PhD students, THU
6/2020	Scholarship for future scholars (Top 3%), THU
6/2020	Outstanding graduates of Beijing
6/2020	Outstanding graduates of Tsinghua University (Top 2%), THU
6/2020	Outstanding contribution award for graduates of Department of Precision Instrument, THU
10/2019	Scholarship for Excellent Student work , THU
10/2019	XCMG scholarship (Top 1%), THU
10/2019	Scholarship for Comprehensive Excellence , THU
12/2018	Second prize of HuaLuoGeng cup mathematical modeling contest of Tsinghua University
10/2018	Science and Technology Innovation Excellence Award, THU
10/2018	National scholarship (Top 2%)
07/2018	Second prize of the 34th national optoelectronic Design Competition
10/2017	Scholarship for Social practice Excellence , THU
10/2017	Scholarship for Volunteer public welfare Excellence , THU
10/2017	Scholarship for Comprehensive Excellence , THU

Certificates and Skills

Language	English (CET4/CET6)
Computer	Python and Deep Learning Frameworks (Pytorch, SpikingJelly, For data science)
	Java, C/C++ (For software engineering, testing)
	Maintenance and network safety on Ubuntu Server operation system