Wei Fang's CV [Homepage][GitHub] [Google Scholar]

About

Name: Wei Fang Email: fangwei123456g@gmail.com, wei.fang@miromind.ai

Education and Working Experience

2015.9-2019.6	Tsinghua University, Department of Automation, bachelor
2016.9-2019.6	Tsinghua University, School of Economics and Management, the second bachelor's degree
2019.9-2024.6	Peking University, School of Computer Science, Ph.D., advised by Professor Yonghong Tian
2024.7-2025.2	Peking University, School of Electronic and Computer Engineering, Research Assistant Professor
2025.3-2026.2	Yale University, Electrical & Computer Engineering, Postdoc Associate, mentored by Prof. Priya Panda
2026.3-Now	MiroMind, AI Research Scientist

Publications

My research focuses on the deep learning algorithms of Spiking Neural Networks (SNNs), which is an inter-discipline of computational neuroscience, machine learning, deep learning, recurrent neural networks (RNNs), quantized neural networks, and neuromorphic computing. In general, deep SNNs can be regarded as special RNNs with activations quantized as 0 and 1. They have the advantages of high biologically plausible, event-driven, and sparse computation, and show extremely high power-efficiency in neuromorphic chips.

Citations: 3588, h-index: 14, i10-index: 15

First/Corresponding-author Publications

Papers	Publishers	Citations
Incorporating Learnable Membrane Time Constant to Enhance Learning of Spiking Neural Networks	ICCV 2021	973
Deep Residual Learning in Spiking Neural Networks	NeurIPS 2021	870
SpikingJelly: An Open-source Machine Learning Infrastructure Platform for Spike-based Intelligence	Science Advances, 2023	690*
Parallel Spiking Neurons with High Efficiency and Ability to Learn Long-term Dependencies	NeurIPS 2023	83
Review of Surrogate Gradient Methods in Spiking Deep Learning (In Chinese)	Chinese Journal of Computers 2025	
Differential Coding for Training-Free ANN-to-SNN Conversion	ICML 2025	2
Multiplication-Free Parallelizable Spiking Neurons with Efficient Spatio-Temporal Dynamics	NeurIPS 2025	1
Parallel Training Time-to-First-Spike Spiking Neural Networks	AAAI 2026	
Towards Lossless Memory-efficient Training of Spiking Neural Networks via Gradient Checkpointing and Spike Compression	ICLR 2026	

Other Publications

Papers	Publishers	Author Rank
Optimal ANN-SNN Conversion for High-accuracy and Ultra-low-latency Spiking Neural Networks	ICLR 2022	2
Exploring Loss Functions for Time-based Training Strategy in Spiking Neural Networks	NeurIPS 2023	2
Optimal ANN-SNN Conversion with Group Neurons	ICASSP 2024	2

Pruning of Deep Spiking Neural Networks through Gradient Rewiring	IJCAI 2021	3
State Transition of Dendritic Spines Improves Learning of Sparse Spiking Neural Networks	ICML 2022	3
Training Spiking Neural Networks with Event-driven Backpropagation	NeurIPS 2022	3
A Unified Framework for Soft Threshold Pruning	ICLR 2023	3
Self-architectural Knowledge Distillation for Spiking Neural Networks	Neural Networks	4
Spike-based Dynamic Computing with Asynchronous Sensing-Computing Neuromorphic Chip	Nature Communications	8

Academic Service

Journal Reviewer: IEEE Transactions on Pattern Analysis and Machine Intelligence, IEEE Transactions on Cognitive and Developmental Systems, IEEE Transactions on Neural Networks and Learning Systems, Scientific Reports, Neural Networks

Conference Reviewer: CVPR, ICCV, NeurIPS, ICLR, ICML, AAAI

Projects

SpikingJelly: an open-source deep learning framework for Spiking Neural Networks (SNNs)

- 1800+ stars, 280+ forks, 640+ issues/pull requests
- There are more than 500 publications using SpikingJelly
- Recommended by **Nature Computational Science** in the Research Highlight article *A Full-stack Platform for Spiking Deep Learning*

Python JPEG Encoder

- This project starts from scratch to create a standardized JPEG file

Tello GUI Controller

- A GUI controller based on Qt5 for the DJI Tello UAV.

Contributions to other open-source projects

- Lava DL (a library of deep learning tools for deep event-based networks under Intel's leadership): fix the bug of WgtScaleBatchNorm, block.AbstractInput
- Awesome Model Quantization(Collections about model quantization): fix the errors of paper URLs

Awards

- Outstanding Students of the Year of National Engineering Laboratory for Video Technology, Peking University, in 2021
- Outstanding developers of the OpenIntelligence (OpenI) community in 2020, 2021, and 2022
- The first prize of the fourth China Software Open Source Innovation Competition
- Merit Student of Peking University in the academic year of 2021-2022
- College Scholarship (Schlumberger Scholarship) of School of Computer Science, Peking University in the academic year of 2021-2022
- Merit Student of Peking University in the academic year of 2022-2023
- College Scholarship (Ubiquant Scholarship) of School of Computer Science, Peking University in the academic year of 2022-2023
- "Shi Qingyun Academician's Excellent Thesis Award" in 2023 (only two papers will be selected from the students in School of Intelligence Science and Technology, School of Computer Science and School of Mathematical Sciences in Peking University)
- Annual Top 10 students of the National Engineering Laboratory for Video Technology (rank first)
- Outstanding Graduate of Peking University, 2024
- Outstanding Graduate of Beijing, 2024
- Outstanding Doctoral Dissertation Award, Peking University, 2024
- China Computer Federation (CCF) Outstanding Doctoral Dissertation Award, 2025

Note: Data in this CV are as of 2026.03.05