Haoning Jiang

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EDUCATION

Southern University of Science and Technology — Shenzhen, Guangdong, China
Electrical and Electronic Engineering — *Sep. 2022 - Present*

INTERNSHIP EXPERIENCE

Artificial Intelligence Algorithm Intern — Changsha, Hunan, China
Ascend LLM team, Hunan Kunpeng Ecological Innovation Research Center**(HUAWEI)** — *Jan 2025 – Mar 2025*

1) Host technical workshops on Diffusers framework practices and reinforcement learning in Ascend LLM team, covering stable diffusion, distributed training, LoRA fine-tuning, custom pipeline development, post-training techniques like group relative policy optimization(GRPO) algorithm.
2) Implemented tiled matrix computation and online softmax to avoid the deployment of full attention matrix, reducing GPU memory usage by 45% with same accuracy.

PUBLICATION

[C.1] B. Liu*, **H. Jiang***, H. Zhang, X. Gao, Z. Kong, X. Tang, R. Wang, and Y. Lin, *"GRAIN: A Design-Intent-Driven Analog Layout Migration Framework",* Design, Automation and Test in Europe(**DATE**), Extended Abstract

[C.2] H. Wu*, **H. Jiang***, Z. Wang, Y. Ou, B. Yuan, Y. Lu, and J. Jiang, *"Parallel Critic-Free Reinforcement Learning with Direct Parameter Space Mapping for Large-Scale Analog LDO Sizing."* IEEE International Symposium on Circuits and Systems**(ISCAS)**

[C.3] H. Wu*, **H. Jiang***, Y. Ou, Z. Wang, Q. Shen, B. Yuan, Y. Lu, and J. Jiang, *"ACEMARL: Adaptive Clustering Enhanced Multi-Agent Reinforcement Learning for Analog Circuit Sizing"* Design, Automation and Test in Europe(**DATE**)

[C.4] **H. Jiang*,** H. Wu*, Y. Ou, Z. Wang, T. Chen, and J. Jiang, *"FD-MAGRPO: Functionality-Driven Multi-Agent Group Relative Policy Optimization for Analog-LDO Sizing,"* in Association for the Advancement of Artificial Intelligence**(AAAI)**

[C.5] J. Wang*, **H. Jiang*,** J. Wang, R. Chen, C. Zhuang, J. Song, *"SPECTRUM: Synergistic Precision Extraction and Chart Transformation Tool for Robust Unified Power SeMiconductor (IGBT) Datasheet,"* **EExPolytech 2025**.

[C.6] H. Wu, **H. Jiang**, Y. Ou, Z. Wang, Z. Wang, S. Zhou, C. Hu, C. Zhang, B. Yuan, Y. Lu, M. Huang and J. Jiang, *"ACUMEN: Automatic Constraint Matching and Uncertainty-Modulated Exploration with Parameter Space Navigation for Analog Circuit Sizing*". Design Automation Conference**(DAC2026),** Under review.

[C.7] Y. Shi, X. Zhang, J. Ji, **H. Jiang,** C. Zheng, Y. Wang, and L. Qu, "*HSENet: Hybrid Spatial Encoding Network for 3D Medical Vision-Language Understanding*," arXiv preprint arXiv: 2506.09634, 2025. Submitted to **CVPR**

[J.1] H. Wu, **H. Jiang**, Z. Wang, Y. Ou, B. Yuan, Y. Lu, and J. Jiang, *"Multi-agent Reinforcement Learning with Auto Group Assigning for Practical Analog-LDO Sizing,"* IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems (**TCAD**), Under review

[J.2] Y. Wang*, J. Chen*, Z. Chen*, S. Kuang*, **H. Jiang,** Y. Shi, H. Yuan, Yan-ran (Joyce) Wang, B. Wang, L. Wu, B. Tang, L. Meng, B. Luo, B. Zhou, W. Ding, W. Zhong, W. Hou, Y. Chen, Z. Wan, W. Wang, Z. Xiao, W. Wan, A. He, Y. Zhou, L. Zhang, F. Wang, Z. Liu, M. Iv, X. Gong, and L. Qu,, *"A Foundation Model for Presurgical Brain Tumor Diagnosis and MRI Interpretation,"* The British Medical Journal**(BMJ)**, Under review.

[J.3] P. Guo*, R. Wang*, S. Zeng, J. Zhu, **H. Jiang**, Y. Wang, Y. Zhou, F. Wang, H. Xiong, and L. Qu, *"Exploring the Vulnerabilities of Federated Learning: A Deep Dive into Gradient Inversion Attacks,"* arXiv preprint arXiv:2503.11514, 2025. IEEE Transactions on Pattern Analysis and Machine Intelligence**(TPAMI)**, Under review**.**

SERVICE

Reviewer and program committee member of AAAI2026, CVPR2026.

PATENT

Patent Name: MARL Optimization Method for Analog Circuits and Related Devices.Patent Type: Invention
Participants: Han Wu, Junmin Jiang, **Haoning Jiang**, Ziheng Wang, Zhuoli Ouyang, Bushu Liang

AWARDS& FUNDINGS

ASC25 World Supercomputing Competition: International Second Prize (May. 2025)
APAC HPC-AI Competition: Excellence Award (Top 8, Nov. 2024)
ASC24 World Supercomputing Competition: International Second Prize (Apr. 2024)
Computer System Design Competition: First Prize in South China Region
Guangdong Climbing Project 2025: Received a grant of 20,000 RMB
HKSTP2025: Received a grant of 100,000 RMB