王毅敏

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教育背景

新加坡国立大学 电子工程 博士在读 2022—至今
新加坡国立大学 电子工程 硕士 2021—2022
复旦大学 微电子学与固体电子学 推免研究生学习 2019—2021
吉林大学 电子信息科学与技术 学士 2015—2019

研究兴趣

存算一体系统设计；人工智能专用加速芯片；软硬件协同设计方法学

科研论文

审稿/投递中

- **[J4]** Y. Wang, YJ. Chong, Z. Wu, and X. Fong, "LLM Inference Acceleration on Scalable PIM Architecture with Balanced Dataflow and Fine-Grained Parallelism", *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems (TCAD)*. (Extension from *ICCAD25*)
- **[J3]** Y. Wang and X. Fong, "Ising Machine with Asynchronous Latches and Boolean Logics for Versatile COP Solving", *IEEE Journal on Emerging and Selected Topics in Circuits and Systems (JETCAS)*. (Extension from *ISCAS24*)
- **[J2]** Y. Wang, Z. Wu, YJ. Chong, and X. Fong, "JADE: Joint Architecture-Dataflow Exploration for LLM Inference on Heterogeneous In- and Near-memory Computing Systems", *IEEE Journal on Emerging and Selected Topics in Circuits and Systems (JETCAS)*.

已发表/录用

- **[BC1]** Y. Wang and X. Fong, "Accelerating Algorithms using Emerging Non-volatile Memory Subsystems for Edge Computing," *Non-Volatile Memory and Selector Devices: Technology and Applications*, Wiley, 2026.
- **[C4]** Y. Wang, YJ. Chong, and X. Fong, "LEAP: LLM Inference on Scalable PIM-NoC Architecture with Balanced Dataflow and Fine-Grained Parallelism," *IEEE/ACM International Conference on Computer-Aided Design (ICCAD)*, 2025.
- **[C3]** Y. Wang and X. Fong, "Energy-Efficient Ising Machines Using Capacitance-Coupled Latches for MaxCut Solving," *IEEE International Symposium on Circuits and Systems (ISCAS)*, 2024.
- **[C2]** Y. Wang, Y. Cen, and X. Fong, "Design Framework for Ising Machines with Bistable Latch-Based Spins and All-to-All Resistive Coupling," *IEEE International Symposium on Circuits and Systems (ISCAS)*, 2024.
- **[J1]** Y. Wang and X. Fong, "Benchmarking DNN Mapping Methods for the In-Memory Computing Accelerators," *IEEE Journal on Emerging and Selected Topics in Circuits and Systems (JETCAS)*, 2023.
- **[C1]** Y. Wang, Z. Zou, and L. Zheng, "Design Framework for SRAM-Based Computing-In-Memory Edge CNN Accelerators," *IEEE International Symposium on Circuits and Systems (ISCAS)*, 2021.

科研专利

- T. Chouhan, Y. Wang, H. Javaid, M. Baldi, "Hardware- and Network-Aware Dynamic Gradient Sparsification for Efficient Distributed Training", US Patent, Under filing.

实习经历

研究实习生，超微半导体 (AMD)，新加坡研发部 2024. 5—2024. 11

荣誉奖项

IEEE CASS 学生参会资助奖(Student Travel Grant) 2025. 9
美光基金奖学金 新加坡国立大学 2021–2022 学年
研究生优秀学业奖学金 复旦大学 2019–2020 学年，2020–2021 学年
优秀本科毕业生 吉林大学 2018–2019 学年
三星奖学金 吉林大学 2017–2018 学年
一等奖学金 吉林大学 2015–2016 学年，2016–2017 学年，2017–2018 学年

教学经历

助教, CEG5202 Embedded Software Systems and Security, 新加坡国立大学 2023 春季学期，2024 春季学期
助教, CEG5201 Hardware Technologies, Principles, & Platforms, 新加坡国立大学 2023 秋季学期
助教, TIE2030 Programming Methodology with Python, 新加坡国立大学 2022 秋季学期，2023 秋季学期
助教, TEE2101 Programming Methodology, 新加坡国立大学 2023 春季学期
助教, 物联网工程, 复旦大学 2020 秋季学期

学术兼职

审稿人, IEEE Journal on Emerging and Selected Topics in Circuits and Systems (JETCAS) 2025–至今

审稿人, IEEE Transactions on Circuits and Systems I: Regular Papers (TCAS-I) 2024–至今
审稿人, IEEE Transactions on Very Large Scale Integration (VLSI) Systems 2024–至今
审稿人, IEEE International Symposium on Circuits and Systems (ISCAS) 2024–至今