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Sitian Chen

RESEARCH INTERESTS

My research interests focus on **system for Machine Learning, processing-in-memory, and high-performance computing**. My work aims to improve the cost-efficiency of cutting-edge applications in machine learning systems, including retrieval-augmented generation (RAG), vector search, and recommender systems. By exploring new hardware solutions and optimizing system-level integration, my goal is to bridge the gap between rapidly evolving machine learning models and the underlying computational infrastructure. In the end, I aim to enable more efficient, accessible, and robust AI systems for real-world deployment.

EDUCATION

Ph.D student of Department of Computer science September 2024 - 2028 (expected)
Hong Kong Baptist University *HongKong, China*
Advisors: Prof. Amelie Chi Zhou

Bachelor of Computer science and Technology September 2019 - June 2023
Shenzhen University *Shenzhen, China*
Average GPA: 4.05/4.50 (top 5%)

EXPERIENCE

Summer School of Data Science, Learning and Optimization (DataSLO) June 2025
the University for Foreigners of Perugia *Perugia, Italy*

Research Assistant September 2023 - September 2024
Hong Kong Baptist University *HongKong, China*

HONORS AND AWARDS

- Best Poster Award, HKBU-BNBU Joint Postgraduate Research Symposium, 2025
- Outstanding Graduates, CSSE, SZU, 2023(Top 5%)
- Second prize of Learning Star(three times in 2020, 2021, 2022), SZU (Top 4%)
- PAC Winner of the national preliminary competition, 2021(Top 16 teams)

PUBLICATIONS

[1] Wenjun Yu, ***Sitian Chen***, Amelie Chi Zhou, Cheng Chen. Near-Zero-Overhead Freshness for Recommendation Systems via Inference-Side Model Updates. **In HPCA' 2026**

[2] ***Sitian Chen***, Amelie Chi Zhou, Yucheng Shi, Xin Yao. UpANNS: Enhancing Billion-Scale ANNS Efficiency with Practical PIM Hardware. **In SC' 2025**

[3] ***Sitian Chen***, Haobin Tan, Amelie Chi Zhou, Yusen Li, Pavan Balaji. UpDLRM: Accelerating Personalized Recommendation using Real-World PIM Architecture. **In DAC' 2024**

[4] Xiao Y, ***Sitian Chen***, Amelie Chi Zhou, Shuhao Zhang, Yi Wang, Rui Mao, Xuan Yang. Low-Latency Video Conferencing System for Geo-Distributed Data Centers. **In IWQoS' 2024**

TEACHING

Teaching Assistant
Cloud Computing Spring 2026
Research Methodology Fall 2025
Operating System TA Performance Award | Spring 2025