Yuxin Yang

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BIOGRAPHY

Yuxin Yang is a Master student majoring in computer architecture at Huazhong University of Science and Technology. His research interests include **Index Structures, Memory Systems, and Computer Architecture**.

EDUCATION

Huazhong University of Science and Technology (Average Score: 88.9/100)	**Wuhan, Hubei, China**
B.E. in Computer Science	*Sept. 2018 - Jun. 2022*
Huazhong University of Science and Technology (Average Score: 87.3/100)	**Wuhan, Hubei, China**
M.S. in Computer Architecture	*Sept. 2022 - Jun. 2025*

RESEARCH EXPERIENCE

A hybrid index structure for memory systems
Wuhan, Huazhong University of Science and Technology   *Oct. 2022 - Apr. 2025*
- Introduced ALT-index, a novel hybrid index structure for concurrent memory systems.
- ALT-index improved the performance by up to 1.9-2.3x compared with existing indexes.
- Our paper is accepted by ICDE 2025.

A resizing scheme for file systems
Wuhan, Huazhong University of Science and Technology   *Oct. 2023 - Dec. 2024*
- Designed a head shrinking scheme for flash-friendly file system.
- Improved the resizing time from 60 to 15 minutes on average.

Low latency metadata service for distributed file systems
Wuhan, Huazhong University of Science and Technology   *Mar. 2022 - Sept. 2022*
- Proposed Duplex, a high-performance metadata service with an index structure.
- Improved the performance by up to $7.6 \times / 2.3 \times$ compared to existing solutions.
- Our paper is accepted by ICCD 2023 as the best paper nominee.

PUBLICATIONS

- **Yuxin Yang**, Fang Wang*, Mengya Lei, Peng Zhang, Dan Feng. ALT-index:A Hybrid Learned Index for Concurrent Memory Database Systems. In Proceedings of the International Conference on Data Engineering **(ICDE 2025)**
- Chao Dong, Fang Wang*, **Yuxin Yang**, Mengya Lei, Jianshun Zhang, Dan Feng. Low-Latency and Scalable Full-path Indexing Metadata Service for Distributed File Systems. In Proceedings of the International Conference on Computer Design**(ICCD 2023) (Best Paper Nomination)**

HONORS & AWARDS

Best Paper Nomination in ICCD 2023 Conference	**Washington DC, USA**
Glen Langdon fellowship from UCSC	**Santa Cruz, CA, USA**

TECHNICAL SKILLS

Programming Languages: C, C++, Python, Java
Development Tools: Git, CMake, VSCode
English Level: TOFEL(103)

EXTRACURRICULAR ACTIVITIES

- **Team captain** Badminton Team of Computer Science. Sept. 2021 - Now