

BINGYAO LI

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EDUCATION

University of Pittsburgh
Ph.D. in Computer Science
Advisor: Dr. Xulong Tang

Aug. 2020 - Present

Tianjin University
M.S. in Computer Science and Technology
Advisor: Dr. Ce Yu, Graduated with Honor

Sep. 2017 - Jan. 2020

Tianjin University
B.E. in Computer Science and Technology
Graduated with Honor

Sep. 2013 - July 2017

PUBLICATIONS

- [1] Bingyao Li, Jieming Yin, Anup Holey, Youtao Zhang, Jun Yang, Xulong Tang,
“*Trans-FW: Short Circuiting Page Table Walk in Multi-GPU Systems via Remote Forwarding*,”
HPCA 2023.
- [2] Bingyao Li*, Qi Xue*, Geng Yuan*, Sheng Li, Xiaolong Ma, Yanzhi Wang and Xulong Tang,
“*Optimizing Data Layout for Training Deep Neural Networks*,”
WWW 2022 workshop.
* The authors contribute equally.
- [3] Bingyao Li, Jieming Yin, Youtao Zhang, Xulong Tang,
“*Improving Address Translation in Multi-GPUs via Sharing and Spilling aware TLB Design*,”
MICRO 2021.
- [4] Bingyao Li, Ce Yu, Chen Li, Xiaoteng Hu, Jian Xiao, Shanjiang Tang, Chenzhou Cui, and Dongwei Fan,
“*mcatCS: A Highly Efficient Cross-Matching Scheme for Multi-Band Astronomical Catalogs*,”
Publication of the Astronomical Society of the Pacific, 2019, 131(999).
- [5] Ce Yu, Bingyao Li, Jian Xiao, Chao Sun, Shanjiang Tang, Chongke Bi, Chenzhou Cui, and Dongwei Fan,
“*Astronomical Data Fusion: Recent Progress and Future Prospects - A Survey*,”
Springer Experimental Astronomy, 2019(6).
- [6] Bingyao Li, Ce Yu, Xiaoteng Hu, Jian Xiao, Shanjiang Tang, Lianmeng Li, Bin Ma,
“*An Efficient Retrieval Method for Astronomical Catalog Time Series Data*,”
ICA3PP 2018.
- [7] Xiaoteng Hu, Ce Yu, Bingyao Li, Shanjiang Tang, Jian Xiao, Yanyan Huang,
“*GAIDR: An Efficient Time Series Subsets Retrieval Method for Geo-Distributed Astronomical Data*,”
IEEE HPCC 2018.

RESEARCH EXPERIENCE

University of Pittsburgh

2020 - Present

Research Assistant/Teaching assistant

Advisor: Dr. Xulong Tang

- Optimize address translation in multi-GPU
- Hardware-supported multi-tenant execution in multi-instance GPU

Tianjin University

2017 - 2020

Research Assistant

Advisor: Dr. Ce Yu

- Develop time series subsets retrieval system for large-scale astronomical image data
- Optimize cloud-based storage for long-term astronomical archive data
- Propose a distributed cross-matching scheme for billion-row astronomical data
- Propose an automatic method for cross-matching celestial objects accurately

ICT of Chinese Academy of Science, Beijing

2019 Summer

Visiting Scholar

Advisor: Dr. Yungang Bao

- Port latency-sensitive benchmark to RISC-V architecture
- Evaluate the performance of Tailbench-Riscv on LvNA (Labeled RISC-V)

SELECTED HONORS & AWARDS

CS50 Fellowship, University of Pittsburgh	2022
SCI Fellowship, University of Pittsburgh	2020
National Scholarship, Ministry of Education of China	2019
Graduate Scholarship - First Prize, Tianjin University	2017, 2019
National Astronomical Observatories Scholarship, National Astronomical Observatories	2016

TEACHING

- Teaching Assistant of CS 1550: Introduction to Operating Systems, Pitt, Fall 2021

PROFESSIONAL SERVICE

Artifact Evaluation Committee of MICRO'22, ASPLOS'23