

Yajie Zhang

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EDUCATION

Tianjin University (Ph.D)

Computer Science and Technology

• Advisor: Prof. Ce Yu

China

Sep, 2020 - Present

Massey University (Bachelor)

Computer Science and Technology

New Zealand

Jul, 2019 - Jun, 2020

Hebei University of Technology (Bachelor)

Internet of Things Engineering

China

Sep, 2016 - Jun, 2020

RESEARCH INTERESTS

Resource Allocation and Optimization, Astronomical Informatics, Artificial Intelligence, High Performance Computing

PUBLICATIONS

2023

HLC2: a Highly Efficient Cross-matching Framework for Large Astronomical Catalogues on Heterogeneous Computing Environments

- + **Yajie Zhang**, Ce Yu, Chao Sun, Zhaohui Shang, Yi Hu, Huiyu Zhi, Jinmao Yang, Shanjiang Tang
- + *Monthly Notices of the Royal Astronomical Society*.

A Multi-level Scheduling Framework for Distributed Time Domain Large-area Sky Survey Telescope Array

- + **Yajie Zhang**, Ce Yu, Chao Sun, Jian Xiao, Kun Li, Yifei Mu, Chenzhou Cui
- + *Astronomical Journal*.

3DT-CM: A Low-complexity Cross-matching Algorithm for Large Astronomical Catalogues using 3d-tree Approach

- + Yifei Mu, Ce Yu, Chao Sun, Kun Li, **Yajie Zhang**, Jizeng Wei, Jian Xiao, Jie Wang
- + *Research in Astronomy and Astrophysics*.

2022

TSCat: Data Model and Storage Engine for AI-based Light Curve Analysis

- + Kun Li, Ce Yu, Yanxia Zhang, Chao Sun, Jian Xiao, Chenzhou Cui, **Yajie Zhang**, Yifei Mu
- + *Monthly Notices of the Royal Astronomical Society*.

Scalable framework of intelligent RFI flagging for large-scale HI survey data from FAST

- + Jian Xiao, **Yajie Zhang**, Bo Zhang, Zhicheng Yang, Ce Yu, Chenzhou Cui
- + *New Astronomy*.

2021

Astro-TS3: Time-series Subimage Search Engine for Archived Astronomical Data

- + Qinlong Kang, Ce Yu, **Yajie Zhang**, Chenzhou Cui, Chao Sun, Jian Xiao, Shanjiang Tang
- + *Astronomy and Computing*.

HONORS and AWARDS

- + Outstanding Graduate, Hebei Province, 2020
- + Merit Student, Hebei University of Technology, 2017-2020
- + University-Level Scholarship, Hebei University of Technology, 2017-2020
- + Provincial Merit Student (3 out of 220), Hebei Province, 2019
- + Meritorious Winner, MCM/ICM, 2019
- + Second Prize, National English Competition for College Students, 2017

SKILLS

- Familiar with commonly used astronomical data analysis software
- Development experience with Python (Pytorch, Tensorflow), C/C++
- Fluent oral English communication and good reading and writing skills (CET-6 602)

SERVICES

- + Journal Reviewer: IOP Publishing Peer Review Excellence training graduate with the American Astronomical Society (AAS), 2023
- + Teaching Assistant of Classes: Parallel Computing, Modern Computer Architecture, Parallel Programming. Tianjin University, 2020-present
- + Translator: International Exchange and Cooperation Department, Hebei University and Technology, 2018