Jingsong Shi

Preferred name: King-Siong Si

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Education

Xi'an Jiaotong University   *Sep. 2023 – Present*
M.S. in Computer Science and Technology
- GPA: 3.78/4.00
- Advisor: Prof. Weizhan Zhang

Xi'an Jiaotong University   *Sep. 2019 – Jun. 2023*
B.E. in Computer Science and Technology (Honors Science Program)
- GPA: 4.00/4.30

Publications and Manuscripts

Unless otherwise specified, authors are listed alphabetically, following the convention in theoretical computer science.

[1] **Evidence Toward a Conjecture in List Recoverability of Folded Reed–Solomon Codes.**
Yeyuan Chen, Mahdi Cheraghchi, King-Siong Si, Zihan Zhang.
Manuscript.

[2] **Accelerating Non-Maximum Suppression: A Graph Theory Perspective.**
King-Siong Si*, Lu Sun*, Weizhan Zhang, Tieliang Gong, Jiahao Wang, Jiang Liu, Hao Sun.
In *Advances in Neural Information Processing Systems (NeurIPS)*, 2024.
(*Authors are ordered by contribution; co-first authors Si and Sun are denoted by *.*)

Selected Awards and Scholarships

Awards

- The 2024 ICPC China Shaanxi National Invitational Programming Contest, **Gold Medal**   *May 2024*
- Outstanding Graduate of Xi'an Jiaotong University   *Jun. 2023*
- The 2022 China Collegiate Programming Contest (Mianyang Site), **Silver Medal**   *Nov. 2022*
- The 2022 ICPC Asia Shenyang Regional Contest, **Silver Medal**   *Nov. 2022*
- The 2022 China Collegiate Programming Contest (Guilin Site), **Silver Medal**   *Oct. 2022*
- The 2021 ICPC Asia Shenyang Regional Contest, **Silver Medal**   *Nov. 2021*
- National High School Mathematics League, **First Prize**   *Sep. 2018*
- China Southeast Mathematical Olympiad, **Silver Medal**   *Jul. 2018*
- National Olympiad in Informatics in Provinces, **First Prize**   *Nov. 2017*

Scholarships

- Academic Excellence Scholarship (First Class), Xi'an Jiaotong University   *Nov. 2025*
- Academic Excellence Scholarship (First Class), Xi'an Jiaotong University   *Nov. 2024*
- Outstanding Freshman Scholarship (First Class), Xi'an Jiaotong University   *Nov. 2023*
- Scholarship (Second Class), Xi'an Jiaotong University   *Nov. 2022*
- Servyou Scholarship (Second Class), Qian Xuesen College Servyou Fund   *Nov. 2021*
- Scholarship (Second Class), Xi'an Jiaotong University   *Nov. 2020*

Experience

Research Intern *Beijing, China*
Institute of Artificial Intelligence (TeleAI), China Telecom *Dec. 2023 – Apr. 2024*

- Analyzed the Non-Maximum Suppression (NMS) algorithm and proposed two optimization methods [2]. One method reduces the complexity from $O(n^2)$ to $O(n \log n)$, while the other significantly improves efficiency without affecting accuracy.

Software Engineer Intern *Shenzhen, China*
ByteDance *Jun. 2022 – Aug. 2022*

- Optimized the TikTok Open Platform code and encapsulated certain features to enhance user experience.

Projects

Chat Room: A Course Project for Computer Networks

- Overview:
  - This project is a multi-user chat room project that I developed as a teaching assistant for the computer networks course.
  - Students attending this course will learn network programming in this lab, focusing on using mutexes to address issues related to shared variables in multi-threaded concurrency. Finally, they will need to carefully implement a codec to resolve TCP packet sticking problems.
- Implemented several demos for testing and code for automated evaluation.
- Source code: https://github.com/king-siong/chat-room

NMS-Bench

- Overview:
  - NMS-Bench is a robust framework that allows researchers to evaluate various NMS methods over different models and datasets in a few minutes.
- Proposed and implemented the QSI-NMS (including eQSI-NMS) and BOE-NMS algorithms from [2].
- Reproduced COCO-style mAP metrics using C++.
- Source code: https://github.com/Yuri3-xr/NMS-Bench