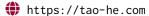
## Tao Zixu He





## Research Interest

Algorithm, Computational Complexity Theory, and Computational Social Choice.

#### **Education**

- 2025 present Ph.D., University of Massachusetts Amherst in Computer Science.
  - 2021 2025 **B.Sc. (Hons.), University of New South Wales** in Computer Science.

# **Work Experience**

- 2024 2025 Research Assistant. University of New South Wales.
  - 2023 Software Engineer. h2x engineering.

# **Selected Awards**

- Engineering 2024 Dean's Honours List(Highly Commended), University of New South
- 2024 Engineering 2023 Dean's Honours List, University of New South Wales.
- 2023 **6th Place worldwide and 1st in Australia**, IEEEXtreme Programming Competition.
  - First Place (Gold Medal), 2024 ICPC South Pacific Regional Contest.
  - First Place (Gold Medal), 2023 ICPC South Pacific Regional Contest.
- 5th Place worldwide and 1st in Australia, IEEEXtreme Programming Competition.

## **Publications**

- H. Aziz, Z. He, X. Lu, and K. Zhou, "Fair allocation of divisible goods under non-linear valuations," in *Proc. of the 24th International Conference on Autonomous Agents and Multiagent Systems*, 2025, pp. 170–178.
- 2 K. Clinch, S. Gaspers, Z. He, A. Saffidine, and T. Zhang, "A piecewise approach for the analysis of exact algorithms," in *International Conference and Workshops on Algorithms and Computation*, Springer, 2025, pp. 79–93.
- S. Gaspers, T. Z. He, and S. Mackenzie, "Np-hardness and eth-based inapproximability of communication complexity via relaxed interlacing," arXiv preprint arXiv:2508.05597, 2025.
- Z. He, S. Botan, J. Lang, A. Saffidine, F. Sikora, and S. Workman, "Fair railway network design," arXiv preprint arXiv:2409.02152, 2024.

### Skills

Languages

Chinese (native), English (fluent).

Programming

C, C++, Python, JavaScript, Java, Answer Set Programming, AMPL (A Mathematical Programming Language)