Ian Chen

Curriculum Vitæ

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Research Interests

High Performance Computing, Algorithmic Engineering, Parallel Algorithms, Graph Algorithms

Education

Fall 2023 – Spring 2027 **BSLAS Statistics and Computer Science**, *University of Illinois Urbana-Champaign*
Minor in Physics

Publications

Journal and Refereed Conference Publications

2026 Vu-Le, T.-A., J. A. C. Lamy, T. Alessi, **I. Chen**, M. Park, E. Harb, G. Chacko, and T. Warnow. "Dense Subgraph Clustering and a New Cluster Ensemble Method". In: *Complex Networks & Their Applications XIV*. Springer Nature Switzerland, pp. 29–40. DOI: 10.1007/978-3-032-16719-4_3.

2026 Vu-Le, T.-A., M. Park, **I. Chen**, J. A. C. Lamy, T. Alessi, E. Harb, G. Chacko, and T. Warnow. "Improving community detection with CVC, a new cluster ensemble method". In: *Applied Network Science*. DOI: 10.1007/s41109-026-00809-z.

2025 Vu-Le, T.-A., M. Park, **I. Chen**, and T. Warnow. "Using stochastic block models for community detection". In: *Applied Network Science* 11.1. DOI: 10.1007/s41109-025-00747-2.

Preprints

2026 **Chen**, **I.**, H. Yi, A. Sharma, T. Warnow, and G. Chacko. *Improved methods for k-core community search*. In Preparation.

2026 Park, M., H. Yi, **I. Chen**, T. Warnow, and G. Chacko. *Modeling citations and cartels*. Preprint. DOI: 10.21203/rs.3.rs-9270520/v1.

Research Experience

Summer 2026 **Undergraduate Course Assistant**, *University of Illinois Urbana-Champaign*
Under Prof. Tandy Warnow and George Chacko. Funded by NSF OAC:2402559.

Summer 2025 **Undergraduate Course Assistant**, *University of Illinois Urbana-Champaign*
Under Prof. Tandy Warnow and George Chacko. Funded by NSF OAC:2402559.

Teaching Experience

Fall 2024 – Present **Undergraduate Course Assistant**, *University of Illinois Urbana-Champaign*
- CS 473 – Algorithms (Fall 2025, Fall 2026)
- CS 233 – Computer Architecture (Fall 2024, Spring 2025)

Professional Experience

Summer 2024 **Software Engineering Intern**, *Maven Optronics*

Student Organizations

Fall 2025 – Present **Admin**, *ACM@UIUC SIGma*
Special Interest Group in Math and Algorithms

Software Packages

Summer 2026 – Present **Contributer**, *icebug*
Icebug is a fork of NetworKit emphasizing zero-copy columnar storage.

Summer 2026 **Author**, *community-search*
Source code and experiments for "Improved Methods for k-Core Community Search".

Summer 2026 **Author**, *format-conversion*
High-performance parallel utilities for converting between on-disk graph representations.