
Education

University of Illinois Urbana-Champaign, College of Liberal Arts and Sciences
Major in Statistics & Computer Science — Cumulative GPA: 3.96 / 4.00

Aug 2023 - May 2027

Publications

- Park, M., Yi, H., **Chen, I.**, Chacko, G., Warnow, T. (2026). Modeling Citations and Cartels. Preprint. 10.21203/rs.3.rs-9270520/v1
- Vu-Le, T., Park, M., **Chen, I.**, Chacko, G., Warnow, T. (2025). Using Stochastic Block Models for Community Detection: The issue of edge-connectivity. Applied Network Science. 10.1007/s41109-025-00747-2
- Vu-Le, T., Lamy, J., **Chen, I.**, Park, M., Harb, E., Chacko, G., Warnow, T. (2025). Dense Subgraph Clustering and a New Cluster Ensemble Method. Complex Networks 2025. 10.1007/978-3-032-16719-4_3

Technical Skills

Programming Languages; Tools

Python, C++, Go, C#, R, Rust, Bash, SQL, MIPS; Git, L^AT_EX

Work Experience

Siebel School of Computing and Data Science

Undergraduate Research Assistant

May 2025 - Present

- Implemented massively parallizable community search algorithms for high performance computing systems.
- Conducted a literature review comparing state-of-the-art (SotA) community detection (CD) algorithms
- Designed experiments demonstrating that a novel CD algorithm outperforms the SotA alternatives.
- Edited manuscripts for two publications accepted in peer reviewed conferences and journals.

Maven Optronics

May 2024 - Aug 2024

Software Engineer Intern

- Implemented Manufacturing Execution System (MES) materials traceability modules — populated mySQL tables to link raw material barcode IDs (with photo records) to assembled MiniLED boards.
- Developed automatic deployment of software releases via win32 installer (.msi) through administrative installation across NAS server.

Projects

ClassFS: course explorer filesystem (<https://github.com/ianchen3/ClassFS>)

Aug 2024 - Dec 2024

- Collaborated with two team members to build virtual file system through FUSE, allowing users to browse the UIUC course catalog with their file explorer of choice.
- Implemented system calls hooks for `open`, `read`, `readdir`, and `stat`.

Directle: NLP-enabled linguistics game (<https://github.com/ianchen3/Directle>)

Jan 2024 - May 2024

- Collaborated with three team members to build a full-stack website hosting an English word game. The game guides players to guess a secret word through one-word semantic clues.
- Implemented a word2vec NLP model using the top 10M wikipedia articles to calculate of word similarities.

Relevant Coursework

Computer Science: *Distributed Systems; Computer Vision; Machine Learning; Communication Networks; Operating Systems; Computer Architecture I & II; Algorithms I & II; Randomized Algorithms; Computational Biology*
Statistics & Math: *Probability I & II; Numerical Analysis; Graph Theory; Differential Equations; Real Analysis*
Physics: *Classical Mechanics; E&M; Thermodynamics; Quantum Mechanics; Special Relativity*