Changdao He

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*I am an undergraduate student at the University of Toronto, deeply interested in the application of computer science across various technological domains. I eagerly seek opportunities for hands-on experience through work and internships. Available to start on **May 1st, 2025**, and open to work until **August 28th, 2026**.*

TECHNICAL SKILLS

- Programming Languages: C, Java, Python, SQL, Shell Script, Assembly, R
- Tools: Git, PostgreSQL, Numpy, JetBrains IDEs, Unix Shell, Saturn, LaTeX, MS Office 365, Logisim-evolution
- OOP, Relational Databases, Dynamic Programming, Technical Proficiency, Project Management, Communication Skills, Problem Solving, Task Planning & Organization Skills, Mentorship & Learning, Teamwork, Independence

EDUCATION

UNIVERSITY OF TORONTO **Toronto, ON**
Honours Bachelor of Science *Sep 2022–Present*

- Computer Science Major, Mathematics Major, Art & Science Internship Program: Computer Science
- CGPA: 3.72/4.0, achieved "Dean's List" Distinction in 2023 & 2024 academic years
- Relevant Courses: Intro to Artificial Intelligence, Software Design, Software Tools & Systems Programming, Algo Design & Analysis & Complexity, Intro to Theory of Computation, Data Structures & Analysis, Computer Organization, Intro to Databases
- Planned Courses (Winter 2025): Intro to Software Engineering, Intro to Machine Learning, Intro to Image Understanding, Intro to Visual Computing, Intro to Number Theory

INTERNSHIP EXPERIENCE

BGI GENOMICS **Shenzhen, China**
Software Development Intern *Jul 2023–Aug 2023*

- Contributed to enhancing the CRM system, conducted module functionality testing, and explored automation strategies to streamline testing workflows.
- Led several group meetings, demonstrating project management and coordination skills.

SHENZHEN UNIVERSITY **Shenzhen, China**
Data Processing Intern *Jun 2023*

- Communicated and collaborated with graduate students and decided how to visualize the data.
- Processed and visualized raw EEG data using the matplotlib library in Python.

PROJECTS

HEURISTICS FOR OTHELLO **Toronto, ON**
Supervised by Professor Alice Gao at University of Toronto *Jan 2025–Present*

- Developing advanced algorithms and heuristics for strategic gameplay in Reversi, a two-player board game. Exploring various approaches for board evaluation, minimax algorithm optimization, and pruning techniques to enhance performance.
- Applying artificial intelligence techniques and game theory to optimize decision-making strategies.

WEATHER WEAVERS **Toronto, ON**
Java, Github *Sep 2023–Dec 2023*

- Led the development of business logic applying Clean Architecture and SOLID Principles in a Java weather application, integrating API for real-time data.
- Implemented multiple use cases, conducted comprehensive testing and debugging, significantly improving application reliability and user experience in a collaborative team project.