Bill Lin

778-917-7190 | bill10391@gmail.com | linkedin.com/in/bill-l-aa9018242/ | github.com/linyirun

Education

University of Toronto Toronto, ON

Honors Bachelor of Science | Computer Science Specialist, Mathematics Major Sep. 2022 - Present

CGPA: 4.0, 97% Average

Relevant Coursework: Calculus with Proofs, Multivariable Calculus, Linear Algebra, Computer Science 1 & 2, Theory of Computation, Software Design, Computer Organization

Work Experience

Huawei - Software Development Contractor | *C++* Jul. 2023 - Sep. 2023

Remote, Part-Time

- Collaborated with a team of developers to design an optimized algorithm aimed at surpassing the performance of the open-source linear algebra library OpenBLAS for general matrix multiplication
- Successfully achieved a performance boost of up to **4%** compared to OpenBLAS for the given test data
- Designed a new tiling algorithm with LIBXSMM kernels in C++ to speed up computation

Competitions

Canadian Computing Olympiad - Bronze Medal May 2022

University of Waterloo - Centre of Education for Mathematics and Computing

- Qualified by placing in the top 25 out of over 8,000 other competitors in the Canadian Computing Competition
- Applied algorithms such as Dijkstra, BFS/DFS, Kruskal's MST and data structures such as Arrays, Queues, and Trees to solve algorithmic problems

International Collegiate Programming Contest Sep. 2022 - Present

- Placed 6th on UofT's North American Qualifier to secure a spot on UofT's 2nd ICPC team
- Represented University of Toronto at the 2022 ICPC East Central NA Regional Contest, placing 30th out of over 80 university teams

Google Code Jam Round 3 - 728th/28000 Jun. 2022

- Placed 728th place out of over 28000 participants in Google's annual programming competition
- Used C++ to solve challenging data structure and algorithm problems

Google Kickstart - 70th/11000, 2nd in Canada 2021 - 2022

- Participated in every Google Kickstart Round from 2021-2022 (for a total of 16 rounds)
- Best rankings: **70th/11000** in 2021 Round D (2nd in Canada), **80th/7150** in 2022 Round B

Projects and Experience

Epidemic Simulator | *Python, Pygame* Jan. 2023 - Apr. 2023

- Collaborated with 3 others to make an epidemic simulator, using GitHub for version control
- Allows the user to specify variables that impact the infection, such as number of people, rate of infection, infection radius, people's movement speed, etc.
- Displayed data to the user with tables storing data along with an animated graph showing the proportion of uninfected, infected and recovered
- Implemented Brownian motion as a toggle for the user to experiment with different movement trajectories

Teaching Assistant - Programming 11 Jan. 2022 - Jun. 2022

Steveston-London Secondary School

- Assisted in teaching an intro to programming class for grade 11-12 students
- Taught concepts such as arrays, binary search and recursion
- Helped students debug and assisted them with their Pygame projects

Skills

Languages: Java, Python, C++, LaTeX
Developer Tools: Git, Xcode, PyCharm, IntelliJ, CLion