

Simon Chase

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SKILLS

Languages: Java, C, C++, JavaScript, HTML/CSS

Tools: Git/GitHub, Jira, Linux, Visual Studio Code, IntelliJ IDEA

PROJECTS

Physics Engine | *Java, Java AWT*

- Created a basic physics engine from scratch using Java AWT
- Explored and implemented optimizations, **doubling benchmark performance**
- Implemented a hybrid of time-based and event-based calculations to handle **100s of moving objects**

Sudoku Solver | *C++*

- Researched optimal strategies to solve Sudoku problems
- Implemented the dancing links algorithm using **doubly linked lists** to maximize the program's solving speed
- Achieved **solve times of under 10ms** for all Sudoku problems

Carrier Pigeon | *Java, Socket*

- Utilized socket to create a local messaging application in Java from scratch
- Designed server class to be self-hostable to **improve privacy and security** for users

EXPERIENCE

Quality Assurance Analyst

May 2022 – Aug. 2022

Veriday

Remote

- Worked as part of an Agile team to **test and fix bugs** in a Java application
- Wrote Python scripts to automate key workflows and improve efficiency
- Leveraged web technologies such as CSS to upgrade client websites

Assistant Manager

Oct. 2019 – Aug. 2021

Gravity Climbing Gym

Hamilton, ON

- **Managed up to 5 staff**, with broad responsibilities throughout the gym
- Took ownership of new initiatives, such as a Bluetooth music system and upgrading equipment
- Led in-depth courses on how to belay with a **100% pass rate** of the follow-up test

COMPETITIONS

Canadian Computing Competition (Senior Division)

- Ranked in the **top 12%** of 2900+ competitors in 2021
- Ranked in the **top 8%** of 2800+ competitors in 2020

Other

- Ranked **1st out of 500+ competitors** in the UWaterloo Financial Literacy Competition

EDUCATION

University of Waterloo

Waterloo, ON

Bachelor of Computer Science, 91% Average

Sept. 2021 – April 2026

- President's Scholarship of Distinction
- Coursework: Designing Functional Programs (96%); Elementary Algorithm Design and Data Abstraction (96%)