

1B SOFTWARE ENGINEERING · UNIVERSITY OF WATERLOO

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Skills____

Languages Java, Python, C++, C, JavaScript, HTML, CSS, Bash, SQL

Frameworks/Tools Git, Flask, Tkinter, Swing

Projects _____

WEBSITE ☑ Jan. 2021 to Present

- Constructed portfolio website from scratch and deployed to GitHub Pages.
- Implemented a theme switcher using CSS and JavaScript.

ANTI-RONA LOCK SYSTEM 🖸

Oct. to Dec. 2020

- Integrated our software components using **object-oriented programming** and **functional programming** in **Python**.
- Designed and implemented a **graphical user interface** using **Tkinter**.
- Communicated effectively with everyone, allowing integration and completion of the project one week before the deadline.
- Debugged my teammate's code, a foundational part of our project, successfully.
- Derived and implemented the mathematical formulae for distance calculations in **Python**.

CHESS 🗹 May to June 2019

- Built Chess from scratch with **Java** and **object-oriented programming** principles.
- Created a complete graphical user interface with movement animations using Java's Swing toolkit.
- Implemented undo/redo, saving/loading, and additional features.

GAMES 🗹 June to Sept. 2020

- Implemented <u>Ultimate tic-tac-toe</u> using **Java** and <u>Checkers, Connect Four</u> and <u>Tetris</u> using **C++**
- Applied object-oriented programming principles.
- Implemented algorithms for move/input validation, "Game over" checks, et cetera.

Experience _____

Kumon Educational Japan Co. Ltd.

Cambridge ON, Canada

GRADER/TUTOR

2017 to 2018

• Graded thousands of student worksheets and guided many puzzled students.

Awards

UWATERLOO PRESIDENT'S SCHOLARSHIP OF DISTINCTION

2020

• 95+ admission average

AP SCHOLAR WITH DISTINCTION

2020

• 5/5 on all AP exams

CAYLEY (MATH) CONTEST SCHOOL CHAMPION

2018

• Top 1% of 24,709 contestants

Education

University of Waterloo

Waterloo ON, Canada Sept. 2020 to Apr. 2025

CANDIDATE FOR BACHELOR OF SOFTWARE ENGINEERING

• 96.64 Cumulative GPA

FEBRUARY 27, 2021 DAVID XU · RÉSUMÉ