

David Xu

1B SOFTWARE ENGINEERING · UNIVERSITY OF WATERLOO

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Skills

Languages Java (Proficient); Python, C, C++ (Semi-proficient); Kotlin, JavaScript, HTML, CSS, Bash (Familiar)
Tools/Technologies Experience with Git, Tkinter, Swing

Projects

WEBSITE

Jan. 2021 to Present

- Constructed personal website with **HTML**, **CSS** and **JavaScript** and deployed to GitHub Pages.
- Created a menu with animations using CSS and JavaScript.

ANTI-RONA LOCK SYSTEM

Oct. to Dec. 2020

- Integrated our software components using both **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 key 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 Ultimate tic-tac-toe using **Java** and Checkers, Connect Four and Tetris 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

- Scored 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

CANDIDATE FOR BACHELOR OF SOFTWARE ENGINEERING

Sept. 2020 to Apr. 2025

- 96.64 Cumulative GPA