# **David Xu**

### SOFTWARE ENGINEERING · UNIVERSITY OF WATERLOO

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## **Education**

**University of Waterloo** 

Waterloo ON, Canada

**BACHELOR OF SOFTWARE ENGINEERING** 

Sept. 2020 to Apr. 2025

· Currently in first year second term; Cumulative GPA: 96.6

Skills

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

Frameworks/Tools Git, Flask, React, PostgreSQL, Heroku

# Projects\_\_\_\_\_

ANTI-RONA LOCK SYSTEM 🗗

Oct. to Dec. 2020

- Integrated computer vision and machine learning software using Python.
- Derived and implemented the **algorithms** for distance computation in Python.
- Designed and implemented a graphical user interface using Tkinter.
- Communicated effectively with everyone in the team to coordinate the project.

CHESS C May to June 2019

- Developed original move validation **algorithms**, checkmate logic, et cetera.
- Built from scratch with **Java** and **object-oriented programming** principles.
- Created a complete graphical user interface with movement animations using Java's Swing toolkit.

Website 🗹 Jan. 2021 to Present

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

Bug Tracker ☑ Mar. 2021 to Present

- Developed a bug tracker in **Python** using the **Flask** framework and deployed to **Heroku**.
- Used **PostgreSQL** to manage the database and **SQLAlchemy** to query it.

#### Awards

DEAN'S HONOURS LIST

· High GPA and ranking

UWATERLOO PRESIDENT'S SCHOLARSHIP OF DISTINCTION 2021

• 95+ admission average

AP Scholar with Distinction 2020

• 5/5 on all AP exams

• Top 1% of 24,709 contestants

CAYLEY (MATH) CONTEST SCHOOL CHAMPION

2018