

# David Xu

SOFTWARE ENGINEERING · UNIVERSITY OF WATERLOO

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## Education

### University of Waterloo

BACHELOR OF SOFTWARE ENGINEERING

- Currently in first year second term; Cumulative **GPA: 96.6**

Waterloo ON, Canada

Sept. 2020 to Apr. 2025

## 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.

### CHESSE

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

2021

- High GPA and ranking

### 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