

## SOFTWARE ENGINEERING · UNIVERSITY OF WATERLOO

## **Education**

**University of Waterloo** 

Waterloo ON, Canada

CANDIDATE FOR BACHELOR OF SOFTWARE ENGINEERING

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

Sept. 2020 to Apr. 2025

Skills

 $\textbf{Languages} \quad \textbf{Python, JavaScript, CSS, HTML, Java, C++, C, SQL}$ 

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

**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

March 15, 2021 David Xu · Résumé