

Daniel Chen

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Summary of Skills

Languages: Python, Java, C, Scheme, HTML, CSS

Tools/Frameworks: Android Studio, Bootstrap, Flask, Git, Microsoft Office, MongoDB

Others: Native fluency in English and Mandarin

Education

University of Waterloo

Sept 2018 – Present

- Candidate for **Bachelor of Computer Science** in the Faculty of Mathematics, currently in term 1B.
- Cumulative GPA of **3.98**, with an average of **97%** in computer science/math courses.

Projects

RemindMe!

Jan 2019 – Feb 2019

Python, Flask, MongoDB, HTML

- A web app that allows users to register and keep track of their current topics of focus and create short notes and reminders on each topic.
- Allows the creation, editing, and deletion of notes and the registration and login of accounts
- Features a clean and **modern user interface**.
- Implemented **HTTP request methods** and Flask sessions to allow users to interact with the database.

Optimism – A Virtual Chess Engine (Starterhacks 2019)

Jan 2019

Python, Pygame

- Built a virtual chess engine using Python and Pygame **without other pre-existing frameworks**.
- Interactions between multiple classes and complex methods.
- Utilizes the **minimax algorithm** and a **self-written AI evaluation system** to determine the best move on the board after a series of evaluations.
- In theory, able to calculate to an infinite depth at the cost of run-time.

Conversions App

Dec 2018

Java, Android Studio

- Developed a mobile app that allows the calculation of conversions between common units.
- Supports **five types** of conversions, including clothing sizes, height, weight, temperature, and time.

Automatic Motion Sensor Lamp

May 2018

Raspberry Pi, Python, PIR sensors

- A motion sensor lamp built with Raspberry Pi and python, using relay switches, PIR sensors, and GPIO.
- **Detects passive infrared waves** and remains on as long as new signals are sent once every 30 seconds.

Work and Volunteer Experience

Private Tutor

May 2015 – June 2018

- Tutored students ranging from grade 6-12 on elementary/high school level mathematics, sciences, and computer science languages.
- Reviewed School work and self-prepared study material, notes, and homework for students.
- Aided and prepared students for upcoming math/computer science contests.

Teaching Assistant – MPM Math School

Dec 2014 – May 2016

- Marked assignments, quizzes and tests
- Communicated effectively with children in grades K – 7.

Hobbies and Interests

A Capella (member of the Water Boys) | Chess (former member of team BC) | Travel | Mental Wellness