

# Daniel Chen

✉ z539chen@edu.uwaterloo.ca

☎ (778) 855-8268

in [linkedin.com/in/daniel-chen-0b248816b](https://www.linkedin.com/in/daniel-chen-0b248816b)

🐙 [github.com/dchen3121](https://github.com/dchen3121)

🏠 [dchen3121.github.io](https://dchen3121.github.io)

## Summary of Skills

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**Languages:** Python, Java, C, C++, Scheme, HTML, CSS, JavaScript

**Tools/Frameworks:** Bootstrap, Flask, Git, MongoDB, SQL, Android Studio

**Others:** Native/Bilingual fluency in English and Mandarin

## Projects

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### 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.
- Implemented **HTTP request methods** and **Flask sessions** to allow users to interact with the database.
- Allows the creation, editing, and deletion of notes and the registration and login of accounts
- Features a clean and modern user interface.

### COptimism – A Virtual Chess Engine (Starterhacks 2019)

Jan 2019

Python, Pygame

- Built a virtual **chess engine** using Python.
- Created a proper **graphical user interface** using the Pygame module.
- Implemented a **minimax algorithm** and a **self-written AI heuristic** to determine the best move on the board after a series of evaluations.
- Able to calculate low-depth situations at a reasonably high speed.

### Conversions App

Dec 2018

Java, Android Studio

- Developed a **mobile app** using Android Studio 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

- Constructed a **motion sensor lamp** 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

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### Private Tutor

May 2015 – June 2018

- Tutored twelve 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.

## Education

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### University of Waterloo

Sept 2018 – Present

- Candidate for **Bachelor of Computer Science** in the Faculty of Mathematics, currently in term 2A.
- Cumulative GPA of **3.98**, cumulative average 92.8%.

## Hobbies and Interests

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A Cappella (current president of The Water Boys) | Chess (former member of Team BC) | Travel | Mental Wellness