# Le Han (Lucas) Zhu

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github.com/LunkyWonky

#### Skills

**Languages** Python, C++, C, Java, JavaScript, Racket, SQL (MySQL, Postgres SQL), Haskell

Frameworks Angular, React Native, Node.js, React Soft Skills Leadership, Teamwork, Problem-Solving

## **Education**

#### University of Waterloo: Bachelor of Computer Science (BCS)

2024-2029 (Expected)

GPA: 3.85/4.0. CAV: 88

- Awards: CIBC National Math Scholarship, President's Scholarship of Distinction
- Academics: Taking Advanced Math and CS courses covering Ring and Group Theory, Mathematical Analysis, Topology, Probabilistic and Deterministic Primality Tests, Functional Programming, and Machine Language

Guelph C.V.I. IB Program 2020-2024

IB Diploma Score of 41

- Schulich Leader Nominee
- AP Calculus BC Score of 5, AP Computer Science A Score of 5

### Achievements

**CIBC National Math Scholarship** 

2024

- 1 Awarded Each Year by the University of Waterloo
- Given to a candidate distinguished academic standing in mathematics and/or computer science and record of accomplishments in mathematics and/or computer science far exceeding standard course requirements

**Math Contest Results** 2019-Present

- Qualified for the Canadian Qualifying Repechage (CMOQR)
- (Top 125 in Canada) - 4 x Oualified for the American Invitational Math Examination (Top 2.5'%' in North America)
- 2023 Canadian Senior Math Contest Student Champion

(Top 8 in Canada out of 10000 competitors)

- Euclid Contest Group IV Honour Roll

(Top 1.5'%' in over 15000 competitors)

- Canadian Computing Contest Senior Honour Roll
- 2 x Attended Harvard MIT Math Tournament (HMMT)

#### **Projects**

#### Midnight Sun Strategy Team

2024-Present

- University of Waterloo Design Team focused on solar car design
- Part of strategy team, researched and utilized Solar API to maximize power gain based on solar irradiance
- Wrote python scripts with psycopg2 to upload CAN data to Postgres DB connected to Grafana in order to visualize data
- implemented genetic algorithms with python into optimization module to improve solar car efficiency

## **Mobile Card Creator Party Game**

2025

- Android and IOS app designed as a party game for friends
- Worked on frontend with TypeScript and JavaScript, integrated image upload capabilities with React Native
- Used Google Firebase on the backend for storage and retrieval of gamestates.

**Rotrics Dexarm** 2023-2024

- Designed C++ script to convert PNG images to SVG files
- Implemented Rotrics API in Python to physically draw out converted SVG files

## **Relevant Experience**

# **Canadian Team Programming Competition Tester**

2024-Present

Responsible for testing contest problems present in the Canadian Team Programming Competition

# **Nine Chapters Contest Chair**

2024-Present

- Responsible for the Preparation and creation of the Nine Chapters math contest
- The NCC is organized by Grand River Chinese School, sponsored by Canadian Mathematical Society (CMS)

#### **Grand River Chinese School Math Teacher**

2022-Present

- Taught math contest concepts and problem solving skills to grade 7/8s
- Responsible for managing and creating lessons and homework

#### **Guelph CVI Math Contest Club President**

2021-2024

- Let the GCVI Math Contest Club, Responsible for planning weekly meetings and organizing Math Contests at GCVI
- Through leadership improved Math Contest Results, GCVI became District Champions in the 2022 CSMC