

# Zhao-Ze Albert Hong

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## EDUCATION

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### University of Toronto

Honours BSc in Mathematics Specialist, Economics Minor, Philosophy Minor

Toronto, ON

*Expected June 2027*

CGPA: 3.83/4.00    Major GPA: 4.00/4.00

Relevant Coursework: Logic, Analysis, Algebra, Microeconomic Theory, Machine Learning, Engineering Design  
(Transferred from Engineering Science)

## PROJECTS

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### Mathematics & Philosophy Blog

*2025 – Present*

- Writes expository pieces on analysis, logic, and philosophical questions at [zzalbert.com/articles.html](https://zzalbert.com/articles.html)

### Canoe Training Machine Design

Toronto, ON

Course Project (ESC102H1 Engineering Design)

*January – April 2024*

- Collaborated with stakeholders to develop user-centered requirements
- Applied the FDCR model to design an interactive prototype for synchronization training
- Analyzed prototype data to evaluate design performance and identify strengths among proposed solutions

### Matboard Bridge Design

Toronto, ON

Course Project (CIV102H1 Structures and Materials)

*November 2023*

- Designed and led the construction of a model bridge (776 g, built of matboard and contact cement)
- Simulated bridge performance using custom Python scripts to optimize design
- Achieved 70.4 kg load capacity; ranked 3rd of 22 teams, achieving great structural performance and efficiency

### TOEFL Synonym Solver (Python)

Toronto, ON

Course Project (ESC180H1 Introduction to Computer Programming)

*January – April 2024*

- Built a synonym solver using custom co-occurrence matrices trained on a large text corpus
- Achieved 70% accuracy, demonstrating the effectiveness of classical NLP methods for semantic similarity

## EXPERIENCE

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### Math Peer Tutor

*2022 – 2025*

- Tutored peer students in calculus, focusing on conceptual understanding and problem-solving strategies

### Math Club Lecturer

Taipei, Taiwan

Taipei Municipal Chien Kuo High School

*2021 – 2023*

- Organized and delivered talks on classical inequalities, ruler and compass constructions, math and art, etc.
- Helped students deepen understanding of proof techniques and logical reasoning

### Summer Camp Teaching Assistant (Elementary Level)

Toronto, ON

TDSB Chinese Summer Camp

*July 2022*

- Supported language learning for children aged 4-10 and fostered engagement through games and lessons

## ACADEMIC HONOURS & COMPETITIONS

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### Canadian Mathematical Olympiad

Top 80 in Canada

*2023*

### Fermat and Hypatia Contests

Top 5% among contestants

*2022*

## SKILLS

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### Coding Languages

Python, MATLAB, HTML, LaTeX, Processing.py

### Data Tools

Google Sheets, Excel, SQL (basic proficiency)