

# Yu Li

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## Skills

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- Solid background in Pure Mathematics, Applied Mathematics and Physics.
- Proficient in: Mathematica, Python, R, Maple, Tex and Racket.
- Strong modelling and data analysis skills. Sensitive to quantities, shapes, and structures. Able to recognize patterns and learn new skills fast. Strong self-teaching capacity.
- Strong communication and problem-solving skills.

## Education

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### University of Waterloo

September 2020 – April 2025

*Bachelor of Mathematics*

Major in Mathematical Physics, minor in Pure Mathematics

Academic Level: 3B

Cumulative GPA: 98.75% Major Average: 99.39%

Related Coursework:

- |                         |                                   |                                       |
|-------------------------|-----------------------------------|---------------------------------------|
| ○ Quantum Theory        | ○ Partial Differential Equations  | ○ Abstract Algebra                    |
| ○ Cosmology             | ○ Ordinary Differential Equations | ○ Mathematics for Quantum Information |
| ○ Theoretical Mechanics | ○ Real Analysis                   |                                       |
| ○ Electromagnetism      | ○ Complex Analysis                |                                       |

## Projects/Experience

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### NSERC Undergraduate Student Research Award: Probing Exotic Field Apr 2022 - Aug 2022

- Using the GPS system and magnetometers to probe exotic scalar fields produced from high-energy astrophysical events like Binary Black Hole mergers.
- Worked with Professor Niayesh Afshordi and PhD candidate Conner Dailey.

### Canadian Astro-Particle Physics Summer Student Talk Competition

Aug 2022

- A talk on my NSERC research project on probing exotic scalar fields.
- This event was organized by SNOLAB and the McDonald Institute, held at the Laurentian University

### Self-employed Private Tutor

Jul 2022 - Aug 2022

- Tutoring UCL PHAS0022 Quantum Physics.
- Giving lectures, problem sessions, and writing lecture notes.

### Teaching Assistant

Sep 2021 - Dec 2021

- Teaching assistant for MATH 237 (Calculus 3 for Honours Mathematics).
- Answer students' questions. Mark assignments.

## Achievements

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### Mathematics National Scholarship

Apr 2020

- Entrance scholarship valued at 15,000 Canadian Dollars tenable to University of Waterloo
- Based on outstanding academic records and achievements in math contests

### NSERC Undergraduate Student Research Award

Apr 2022 - Aug 2022

- Award funded by the Natural Sciences and Engineering Research Council of Canada for undergraduate students to do research

### University of Waterloo President's Scholarship of Distinction

Apr 2020

- Entrance scholarship valued at 5,000 Canadian Dollars tenable to University of Waterloo
- Based on admission average (average received: 96%)

### Term Distinction

Sep 2020 – Apr 2022

- Received for excelling academically throughout the term