

# Tom Wu

+1 2498701096

yujun.wu@mail.utoronto.ca

## EDUCATION

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**University of Toronto St. George**

Toronto, Canada Sep. 2021 – May.2025

**Astronomy & Physics Specialist, Computer Science Major with focus in scientific computing**

**National University of Singapore**

Singapore May. 2023 – Jul.2023

**Undergraduate Research Opportunities Program in Science**

## AWARDS & SCHOLARSHIPS

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**The Regents In-course Scholarship**

2023

**Dean's List Scholar**

2023

**Undergraduate Summer Research Exchange Award**

2023

**The Regents In-course Scholarship**

2022

**Dean's List Scholar**

2022

**Regents Admission Scholarship**

2021

**IMMC Global Meritorious, Regional Outstanding**

2020

## RESEARCH EXPERIENCE

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**AST430 Supervised Study in Astronomy and Astrophysics**

**Toronto, Canada**

Supervisor: Prof. Maya Fishbach

Sep. 2023 – Present

- Focus on understanding black hole populations with gravitational waves and gamma-Ray burst
- Estimate binary black hole merger delay time distribution and spin dependence
- Attended graduate course in Compact Objects Gravity, applied knowledge in the research project, proved by ability to comprehend advanced material
- Currently preparing a paper

**Summer UROPS Research Exchange at NUS**

**Singapore**

Supervisor: Prof. Alexey Berdyugin

May. 2023 – Jul. 2023

- Studied the possibility of using Machine Learning techniques to find and map 2D materials exfoliated onto SiO<sub>2</sub> substrate
- Worked on building the software and hardware that enables the automatic mapping and recognition of exfoliated 2D materials Attended graduate course to build on background knowledge
- Assisted machine learning model training by operating microscopes to capture and label samples
- Constructed hardware with Arduino Controllers and 3D CAD modelling, the project saves time by automating the tedious flake search process.

## ACADEMIC EXPERIENCE

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### Physics Second Year Learning Community

Toronto, Canada

Member

Sep. 2022 – Apr. 2023

- Contributed actively to bi-weekly discussions on Physics and study strategies
- Practiced communicating and collaborating skills in academics in a group setting.

### Recognized Study Group

Toronto, Canada

Group Leader

Feb. 2022 – May 2022

- Completed certified leader training, systematically learned important aspects of working in an academic group.
- Displayed leadership and communication skills in a group of 8.

## PROGRAMMING LANGUAGE

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Proficient

Python

Intermediate

Java

Basic Experience

MATLAB, C, R

## EXTRACURRICULAR EXPERIENCE

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### MAH4 Floor Council

Toronto, Canada

Floor Vice President (yr 3)

Sep. 2023 – Present

Floor Vice President (yr 2)

Sep. 2022 – May. 2023

- Elected Vice President of the floor during the academic year
- Organized and coordinated extracurricular activities

### AstroTour at the University of Toronto

Toronto, Canada

Volunteer

Nov. 2022 – Present

- Help setting up equipment and guide people
- Answer Astronomy-Related Questions from the public
- Interactive demo guide, Lab tour guide, Telescope tour guide

### 2023 Victoria College Orientation

Toronto, Canada

Orientation Leader

Sep. 2023

- Completed certified training, studied and tested communication skills
- Ran various activities during the Orientation, trained and served intensely for 95 hours within a week

