

# TAN TZE HENG

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## EDUCATION

### National University of Singapore (NUS) Bachelor of Science (Honours)

Aug 2021 - Aug 2025

- Major in Mathematics (Specialisation in Pure Mathematics)
- Relevant coursework: Programming Methodology, Linear Algebra, Fourier Analysis, Functional Analysis, Partial Differential Equations

### National Taiwan University (NTU) Department of Mathematics, College of Science

Aug 2023 - Jan 2024

- University-wide Student Exchange Programme (undergraduate level)
- Relevant coursework: Ordinary Differential Equations, Complex Analysis, Differential Geometry, Abstract Algebra

## PROJECTS

- NUSMiniMods, a Telegram bot for checking prerequisites of NUS courses (Python).
- An Approval Classification Model of credit card applicants by assigning credibility scores based on application data set (Python).
- Personal website and blog (ttheng.com) (HTML/Markdown/CSS/Hugo).

## SKILLS

Programming: Python, R, Hugo, HTML/CSS, MongoDB, Amazon Web Services (AWS), Power BI

Tools: Linux/Unix shell, Microsoft Office, LaTeX, Desmos

Media: GIMP/Adobe Photoshop, Adobe Premiere Pro, Canva

Language: English (fluent), Mandarin Chinese (native), Cantonese (native), Malay (speaking, reading and writing proficiency)

## EXPERIENCE

### Education Intern, Happy Tutors Learning Centre Pte. Ltd., Singapore

July 2024 – December 2024

- Tutored 15+ weekly small-group tuition classes of various subjects and levels, including Primary and Secondary English, Mathematics and Science, facilitating the learning of 30+ students and reinforcing understanding of topics.
- Curated teaching materials for a structured 12-week Secondary 1 and 2 Mathematics course for the Admissions Exercise for International Students, providing a more standardised, structured course curriculum with comprehensive material.

### Mathematics Tutor, NUS School of Continuing and Lifelong Education, Singapore

April 2024 – May 2024

- Led a lecture and tutorial classes, as well as invigilated the final assessment for the Mathematics Bridging course of the Bachelor of Information Technology (BIT) programme attended by more than 150 working adult students.

### Programming Tutor, NUS School of Continuing and Lifelong Education, Singapore

March 2024 – April 2024

- Executed 4 tutorial classes about Python programming and data processing for the Programming Bridging Course of the Bachelor of Information Technology (BIT) programme attended by more than 150 working adult students.
- Addressed student queries during class, as well as invigilated and graded the final assessment on Python programming and data processing concepts.

### Student Tutor, NUS Undergraduate Teaching Opportunities Programme, Singapore

January 2023 – May 2023

- Prepared teaching materials, managed administrative duties, directed two weekly tutorial classes involving over 30 students for 13 weeks and addressed student queries of a university mathematics course on introductory linear algebra with an enrolment of over 600 students.

## AWARDS AND SCHOLARSHIP

- International Youth Math Challenge (IYMC) 2024, Silver Honour
- International Youth Math Challenge (IYMC) 2020, Silver Honour
- International Youth Math Challenge (IYMC) 2019, Bronze Honour

## CO-CURRICULAR ACTIVITIES

### Backend Team Member, NUS Raffles Hall Developers (RHDevs), Singapore

September 2021 – May 2023

- Managed, maintained and revamped the backend database of RHApp using MongoDB, Python and AWS to store information of 500+ users and facility booking data.

## COMMUNITY INVOLVEMENT

### Student Mentor, NUS Teach SG, March 2024 – September 2024

March 2024 – September 2024

- Co-lead of a volunteer team of 6, offered and organised academic tutoring and enrichment activities to 17 secondary school students.

### Volunteer Instructor, NUS Project RHino, September 2022 – September 2022

September 2022 – September 2022

- Instructed secondary school level Mathematics and English to Singaporean secondary school students, as part of Project RHino, a volunteering initiative by NUS Raffles Hall.

### Instructor, NUS Community Service Club Cantonese Workshop, July 2022 – July 2022

July 2022 – July 2022

- Instructed and guided more than 60 beginner participants in Cantonese in the online dialect workshop through interactive presentation and hands-on activities, receiving positive feedback from participants.