Ryan Joo Rui An in O *

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EDUCATION

Dunman High School

GCE A-Level

Singapore, SG

2023 - 2024

Chung Cheng High School (Main)

Singapore, SG

GCE O-Level: 10 subjects including Additional Mathematics and Physics at grades A1 - A2

2021 - 2022

 Awards: Chuang Weilang Mathematics Award, Dr. Chuang Chu Lin Scholarship for 1st in Standard, Bilingual Award for Excellence in English and Higher Chinese, Best in Additional Mathematics (Secondary Three)
 Award, Best in Mathematics (Secondary Three) Award

Chong Hwa Independent High School

Kuala Lumpur, MY

 $UEC\ Junior$

2019 - 2020

• Awards: Top Scorer Prize in Science, Top Scorer Prize in Mathematics, Top Scorer Prize in English Language, Top Scorer Prize in Bahasa Malaysia, Overall Second Position in Junior Middle One

EXPERIENCE

Sengkang General Hospital

Singapore, SG

Dietetics Intern

Dec 2023

- Acquired foundational knowledge of dietetics profession and infection control protocols.
- Gained insight into the rapeutic diets for various medical conditions, contributing to the development of personalised meal plans for patients.
- Shadowed dieticians in inpatient and outpatient settings, including 3 tube feeding and nutritional support cases, enhancing understanding of tailored patient care.
- Conducted tour of hospital kitchen, gained insight into the electronic Meal Ordering System (eMOS), observed meal preparation and plating procedures.

Cemerlang Bakti Tuition Centre

Selangor, MY

Teaching Intern

Nov 2022 - Dec 2022

- Conducted Mathematics Olympiad classes for 10 students, aged 7 to 16, achieving noticeable advancements in students' problem-solving skills and mathematical comprehension.
- Developed and delivered lesson plans focusing on problem-solving techniques, mathematical reasoning, and critical thinking skills.
- Tracked individual student progress and offered tailored assistance in grasping complex mathematical concepts.

PUBLICATIONS

Books

- The Road to Mastery: Mathematics Olympiad (in writing)
- Mathematics: A University-Level Introduction (in writing)
- Physics: A University-Level Introduction (in writing)

Papers

- On the Infinite Hotel Paradox (in writing)
- On the Dzhanibekov Effect: A Tumbling T-handle in Space (in writing)
- Tools for Mathematical Modelling (in writing)

PROJECTS

Personal website

Website Oct 2023 – present

The source code can be found on my GitHub.

Honours	
	2023
Young Achievers Leadership Academy (YALA) Gold Scholarship $Recipient$	2022
• International Junior Honor Society (IJHS) **Membership*	2022
Young Achievers Leadership Academy (YALA) Gold Scholarship $Recipient$	2021
$\bullet \begin{array}{l} \textbf{ASEAN Scholarship} \\ Recipient \end{array}$	2020
Malaysian Mensa Society, Mensa International Membership, 180 marks, Test Reference Number: MY023479	2020
	2019
Awards	
• Singapore Mathematics Olympiad (SMO) Silver award in Open Section	2023
• Singapore and Asian Schools Math Olympiad (SASMO) Gold award, Top in Singapore	2023
• Australian Mathematics Competition (AMC) • High distinction in Senior Division, Best in school	2023
Singapore Physics Olympiad (SPhO) Bronze award	2023
Singapore Physics League (SPhL) Honourable mention	2023
Singapore Mathematics Olympiad (SMO) Silver award in Senior Section	2022
• Australian Mathematics Competition (AMC) High distinction in Intermediate Division	2022
Singapore Junior Physics Olympiad (SJPO) Bronze award	2022
Singapore Physics League (SPhL) Bronze award	2022
Singapore Junior Chemistry Olympiad (SJCO) Bronze award	2022
• Australian Mathematics Competition (AMC) • Prize award in Intermediate Division	2021
• Malaysian Computing Challenge (MCC) Gold award	2021
$ullet$ Hua Lo Geng Secondary School Mathematics Competition $2nd\ place$	2019
$ \begin{array}{c} \textbf{Chen Jingrun's Cup Secondary School Mathematics Competition} \\ \textit{1st place} \end{array} $	2019
MSSM Chess Championship (Kuala Lumpur Sentul Region) 3rd place	2019

- Languages: English, Chinese, Malay, German
- Programming languages: Python, LATEX, R, C++, HTML, CSS
- Softwares: VS Code, GitHub, TeXstudio, Overleaf, RStudio, Google Earth Engine

EXTRACURRICULAR ACTIVITIES AND SERVICES

Befrienders Programme

Singapore, SG

Committee member

Dec 2023 - Feb 2024

• Designed and executed a programme for Year 5 students to become effective befrienders to incoming O-Level students joining the school. Trained student befrienders to facilitate the smooth integration of new students into the school.

Mathematics Society

Singapore, SG

Member

Feb 2023 - June 2024

- Represented school in competitions and achieved excellent results.
- Planned and executed Math Week, an activity aimed at promoting Mathematics to students at the secondary school and Junior College level through games and exhibitions.

Infocomm Club Singapore, SG

Member

Feb 2023 - June 2024

- Enrolled in a comprehensive course centred on Swift programming, focused on the development of mobile applications.
- Participated in a learning journey to Open Governmental Products (OGP), gained insights into the development and design of user-friendly websites and applications.

Class Committee Singapore, SG

Secretary

Feb 2023 - Jan 2024

- Managed the collection of funds for the class fund, overseeing financial transactions and ensuring transparency and accountability in fund management.
- Coordinated discussions, planning sessions, and execution of class activities aimed at fostering bonding and camaraderie among classmates.

Chinese Chess Club

Singapore, SG

Committee member

Jan 2021 – Aug 2022

• Actively participated in the strategic planning and proficiently executed a Chinese chess competition, aimed at fostering and cultivating a heightened interest in Chinese chess among the club's members.

Academic Research Society

Kuala Lumpur, MY

Secretary, Member of school team

Jan 2019 – Dec 2020

- o Represented school and country in various Mathematics competitions and achieved excellent results.
- Developed, coordinated, and successfully executed a series of meticulously planned academic events, fostering an environment conducive to scholarly discourse and knowledge exchange in Mathematics.

Chess Club Kuala Lumpur, MY

 $Member\ of\ school\ team$

Jan 2019 - Feb 2020

• Represented school in various chess tournaments and achieved excellent results.

COMMUNITY SERVICE

Springfield Secondary School

Singapore, SG

 $Volunteer\ tutor$

May 2023 - Nov 2023

- $\circ~$ Tutored 20 students in need of assistance in Mathematics and Science subjects.
- Designed and delivered personalised tutoring sessions tailored to individual student needs, targeted specific areas for improvement, provided additional practice materials.
- Monitored students' progress, identified areas of improvement, provided constructive feedback to help students
 overcome challenges and enhance their academic performance.

Brahm Centre Singapore, SG

Volunteer

April 2023 - Sep 2023

 \circ Communicated with and provided practical guidance to 10 seniors in utilising mobile phones and mobile application, improved their digital proficiency and technological competence.

Willing Hearts
Singapore, SG
Volunteer
Sep 2022 - Oct 2022

- Assisted in operating a daily soup kitchen.
- Prepared, cooked and distributed 200 meals every day to the elderly, disabled individuals, low-income families, children from single-parent households, and migrant workers.