Ryan Joo Rui An in O

joo.ruian.ryan@dhs.edu.sg +65 8287 6889

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

Dietetics Intern

Sengkang General Hospital

Singapore, SG

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

The Road to Mastery: Mathematics Olympiad

Book

 $June\ 2023-present$

This book presents strategic approaches for excelling in Mathematics Olympiad competitions, providing valuable insights and techniques.

Mathematics: A University-Level Introduction

Book

June 2023 – present

Introducing university-level Mathematics concepts, this book serves as a comprehensive guide, aiding in the understanding and application of advanced mathematical principles.

Physics: A University-Level Introduction

Book

Sep 2023 - present

Presenting a university-level introduction to Physics, this book offers comprehensive insights and knowledge, facilitating a solid grasp of fundamental principles.

PROJECTS

 $Gold\ award$

FROJECTS	
Fires and Hotspots Google Earth Engine Project	Dec 2023
Utilised data from Sentinel-2 satellite to identify hotspots and analyse surrounding area Indonesia.	s in Sumatra,
$ \bullet \begin{array}{c} \textbf{Personal website} \\ Website \end{array} $	Oct 2023 – present
The source code can be found on my GitHub.	
ACHIEVEMENTS	
Honours	
$\bullet \begin{array}{l} \textbf{Young Achievers Leadership Academy (YALA) Silver Scholarship} \\ Recipient \end{array}$	2023
$ \bullet \begin{array}{l} \textbf{Young Achievers Leadership Academy (YALA) Gold Scholarship} \\ Recipient \end{array} $	2022
International Junior Honor Society (IJHS) **Membership*	2022
	2021
ASEAN Scholarship Recipient	2020
Malaysian Mensa Society, Mensa International Membership, 180 marks, Test Reference Number: MY023479	2020
Young Achievers Leadership Academy (YALA) Platinum Scholarship **Recipient*	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
• 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)	

2021

Hua Lo Geng Secondary School Mathematics Competition

2nd place 2019

Chen Jingrun's Cup Secondary School Mathematics Competition

1st place 2019

MSSM Chess Championship (Kuala Lumpur Sentul Region)

 $3rd\ place$ 2019

SKILLS

• Languages: English, Chinese, Malay, German, Japanese, Italian

- Programming languages: Python, LATEX, R, C++, HTML, CSS
- Softwares: VS Code, GitHub, Overleaf, RStudio, Google Earth Engine

ACTIVITIES & LEADERSHIP

Befrienders Programme

 $Committee\ member$

Dunman High School

Dec 2023 - Feb 2024

• Designed and executed a programme for Year 4 (2023)/Year 5 (2024) Dunmanians to become effective befrienders to O-Level students joining Dunman High in 2024. Getting ready student befrienders to facilitate the smooth integration of new students into Dunman High.

Mathematics Society

Dunman High School

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

Member

Dunman High School

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

Dunman High School

Secretary

Feb 2023 - Jan 2024

0

Chinese Chess Club

Chung Cheng High School (Main)

 $Committee\ member$ $Jan\ 2021\ -\ Aug\ 2022$

• 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

Chong Hwa Independent High School

Secretary, Member of school team

Jan 2019 - Dec 2020

- 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

Chong Hwa Independent High School

Member of school team

Jan 2019 - Feb 2020

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

Springfield Secondary School

Singapore, SG

Volunteer tutor

May 2023 - Nov 2023

- o 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

• Communicated with and provided practical guidance to 10 seniors in utilising mobile phones and mobile application, improvied 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.