

Ryan Joo Rui An

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Summary

Aspiring math undergraduate student skilled in analytical thinking and problem-solving. Excelled in Mathematics Olympiads, proficient in programming and experienced with relevant mathematical software. Collaborative team player with strong project management skills and a commitment to continuous learning.

Education

- GCE A-Level** 2023 – 2024
Dunman High School Singapore, SG
- GCE O-Level** 2021 – 2022
Chung Cheng High School (Main) Singapore, SG
 - L1R5: 6 (raw), 4 (nett), A1 in Mathematics, Additional Mathematics, Physics, Chemistry, Biology
 - Dr. Chuang Chu Lin Scholarship for 1st in Standard
 - Chuang Weilang Mathematics Award
 - Bilingual Award for Excellence in English and Higher Chinese, Best in Additional Mathematics (Secondary Three) Award, Best in Mathematics (Secondary Three) Award
- UEC Junior** 2019 – 2020
Chong Hwa Independent High School Kuala Lumpur, MY
 - Overall Second Position in Junior Middle One
 - Top Scorer Prize in Science, Top Scorer Prize in Mathematics, Top Scorer Prize in English Language, Top Scorer Prize in Bahasa Malaysia

Experience

- Dietetics Intern** Dec 2023
Sengkang General Hospital Singapore, SG
 - Acquired foundational knowledge of dietetics profession and infection control protocols.
 - Gained insight into therapeutic diets for various medical conditions, contributing to the development of personalised meal plans for patients.
 - Shadowed dietitians 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, observed meal preparation and plating procedures.
- Teaching Intern** Nov 2022 – Dec 2022
Cemerlang Bakti Tuition Centre Selangor, MY
 - Conducted Mathematics Olympiad classes for 10 students, aged 7 to 16. 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.
 - Achieved noticeable advancements in students' problem-solving skills and mathematical comprehension.

Skills

- Programming:** Python, \LaTeX , R, HTML, CSS
- Libraries:** numpy, pandas, matplotlib, seaborn, scikit-learn, pygame
- Softwares:** VS Code, GitHub, Overleaf, TeXstudio, RStudio, Jupyter Notebook, Google Earth Engine
- Languages:** English (native), Chinese (native), Malay (native), German (limited proficiency)

Projects

- Personal Website** | Website which contains information about myself, my publications, projects and notes I have written, as well as some useful resources for Mathematics, Physics and programming competitions.
- The Road to Mastery: Mathematics Olympiad** | Book to provide expert guidance and practice problems to excel in Mathematical Olympiad competitions. (in writing)
- Mathematics: A University-Level Introduction** | Book (in writing) |
- Physics: A University-Level Introduction** | Book (in writing) |

Achievements

Honours

- Recipient of **ASEAN Scholarship** in 2020
- Member of **Malaysian Mensa Society, Mensa International** since 2020

Awards

- Silver award in **Singapore Mathematics Olympiad 2023** (Open Section)
- Gold award, top in Singapore in **Singapore and Asian Schools Math Olympiad 2023** (Grade 11)
- High distinction, best in school in **Australian Mathematics Competition 2023** (Senior Division)
- Honourable mention in **High School Mathematical Contest in Modeling 2023**
- Bronze award in **Singapore Physics Olympiad 2023**
- Silver award, qualified to Round 2 in **Singapore Mathematics Olympiad 2022** (Senior Section)
- Bronze award in **Singapore Junior Chemistry Olympiad 2022**
- Gold award in **Malaysian Computing Challenge 2021** (Junior Category)
- 2nd place in **Hua Lo Geng Secondary School Mathematics Competition 2019** (Junior Category)
- 1st place in **Chen Jingrun's Cup Secondary School Mathematics Competition 2019** (Junior Category)

Miscellaneous

Co-curricular Activities

- Member of **Mathematics Society**. 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.
- Member of **Infocomm Club**. 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.
- Committee member of **Chinese Chess Club**. 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 30 members.
- Secretary of **Academic Research Society**. Documented meeting minutes and coordinated the planning of events aimed at cultivating a deeper interest in mathematics among 80 club members. Provided mentorship and guidance to fellow members in navigating mathematical concepts and academic pursuits.

Community Service

- **Volunteer tutor** at Springfield Secondary School. 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.
- **Volunteer** at Brahm Centre. Communicated with and provided practical guidance to 10 seniors in utilising mobile phones and mobile application, improved their digital proficiency and technological competence.
- **Volunteer** at Willing Hearts. 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.