

EDUCATION

- **Dunman High School** Singapore, SG
GCE A Level: XX/90 Rank Points, X in H2 Mathematics, X in H3 Mathematics 2023 – 2024
 - **Awards:**
- **Chung Cheng High School (Main)** Singapore, SG
GCE O Level: 10 subjects including Mathematics and Additional Mathematics 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
Intern in Dietetics Dec 2023
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- **Cemerlang Bakti Tuition Centre** Selangor, MY
Teaching Intern Nov 2022 – Dec 2022
 - 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.
 - Monitored individual student progress, assisted students in understanding complex mathematical concepts.
 - Provided personalised feedback and support to help students improve their problem-solving abilities and mathematical proficiency.

PUBLICATIONS

- **The Road to Mastery: Mathematics Olympiad**
Book June 2023 – present
 - Presents strategic approaches for excelling in Mathematics Olympiad competitions, providing valuable insights and techniques.
- **The Language of 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.
- **The Language of Physics: A University-Level Introduction**
Book Sep 2023 – present
 - Presents a university-level introduction to Physics, this book offers comprehensive insights and knowledge, facilitating a solid grasp of fundamental principles.
- **Tools for Mathematical Modelling**
Paper Nov 2023 – present
 - Introduces essential tools for mathematical modeling.
- **Infinite Hotel Paradox**
Paper Nov 2023 – present
 - The Infinite Hotel Paradox is a mathematical thought experiment delving into set theory, addressing the theoretical scenario of accommodating an infinite number of guests. It prompts discussion on the nature of infinity and its implications within mathematical concepts.
- **A tumbling T-handle in space: the Dzhanibekov effect**
Paper Nov 2023
 - The Dzhanibekov Effect refers to the phenomenon where the orientation of an object rotating about an intermediate axis changes unexpectedly.

PROJECTS

- **Name of mobile app**
Mobile application 2024
 - Hosted on GitHub.
- **Name of game**
Website 2024
 - Hosted on GitHub.
- **Fires and Hotspots**
Google Earth Engine Project Dec 2023
 - Utilised data from Sentinel-2 satellite to identify hotspots and analyse surrounding areas in Sumatra, Indonesia.
Hosted on Google Earth Engine.
- **Personal website**
Website Oct 2023 – present
 - Hosted on GitHub.

AWARDS

Honours

- **Young Achievers Leadership Academy (YALA) Silver Scholarship**
Recipient 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
- **ASEAN Scholarship**
Recipient 2020
- **Malaysian Mensa Society**
Membership 2020
- **Young Achievers Leadership Academy (YALA) Platinum Scholarship**
Recipient 2019

Competitions

- **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 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
Gold award
- **Hua Lo Geng Secondary School Mathematics Competition** 2019
2nd place
- **Chen Jingrun's Cup Secondary School Mathematics Competition** 2019
1st place
- **MSSM Chess Championship (Kuala Lumpur Sentul Region)** 2019
3rd place

TRAININGS AND WORKSHOPS ATTENDED

- **Space Data Series: Remote Sensing Workshop** Singapore, SG
Space Faculty Dec 2023
 - **Lecturer(s):** Dr Liew Soo Chin, Dr Fernando Santos, Dr Rakesh Kumar Singh, Chia Aik Song, Lee Ken Young, Hou Chen Guang
 - Introduced to the field of remote sensing and its wide-ranging applications. Gained insights into how satellite imagery and geospatial data are utilised for the monitoring and analysis of natural processes and human activities on Earth.
 - Gained hands-on experience using Google Earth Engine to analyse and visualise satellite imagery and geospatial data.
- **Discrete Mathematics and Statistics with Applications** Singapore, SG
Nanyang Technological University May 2023
 - **Lecturer(s):** Prof Bernhard Schmidt, Dr Gary Royden Watson Greaves
 - Introduced to topics in discrete mathematics, optimisation and statistics, including mathematical game theory, matrix games, mathematical models for games and computation of optimal strategies, linear programming, statistical paradoxes, rental harmony, and lottery investment strategy.
- **Python Programming on Raspberry Pi** Singapore, SG
Nanyang Technological University May 2023
 - **Lecturer(s):** Assoc Prof Nicholas Vun
 - Developed games ran on the Raspberry Pi board using Python programming.

SKILLS

- **Languages:** English, Chinese, Malay, German, Japanese, Italian
- **Programming languages:** Python, L^AT_EX, Java, HTML, CSS, JavaScript
- **Softwares:** VS Code, GitHub, Overleaf, Google Earth Engine

ACTIVITIES & LEADERSHIP

- **Befrienders Programme (Dunman High School)** Singapore, SG
Committee member Dec 2023 – Feb 2024
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- **Mathematics Society (Dunman High School)** 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 (Dunman High School)** 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.
- **Chinese Chess Club (Chung Cheng High School (Main))** 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 (Chong Hwa Independent High School)** Singapore, SG
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)** 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*
 - Tutored 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.
 - Mentored students on effective time management techniques, helped them develop strategies to prioritise tasks, set goals, and allocate study time efficiently.
 - 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*
 - Offered guidance to senior citizens in harnessing the full potential of smartphones and diverse mobile applications, empowering them with valuable digital skills and enhancing their tech-savvy capabilities.
- **Willing Hearts** Singapore, SG
Volunteer *Sep 2022 – Oct 2022*
 - Assisted in operating a daily soup kitchen.
 - Prepared, cooked and distributed 200 meals per day to the elderly, disabled individuals, low-income families, children from single-parent households, and migrant workers.