

Academic - Science

1. DSTA Secondary Scholarship + JC Scholarship 2020-2021
2. Invited for Singapore IPhO training team 2021
3. Offered A*STAR Science Award 2020 - Prestigious award given to 17 year old students for outstanding performance in Science
4. Singapore Physics Olympiad 2020 - Silver
Self-learnt University Physics syllabus
5. Singapore Junior Physics Olympiad 2019 - Silver
Self-learnt JC science syllabus
6. National Science Challenge 2018 - Semi-finalist
National televised science competition
7. Advanced Science Programme - Distinctions in Physics and Chemistry
A prestigious differentiated science programme in my school that teaches an accelerated curriculum for a select few students
8. Completed an MIT edX course on Aeronautical Engineering
9. Harvard CS50x Puzzle Day 2020 - Team score full marks (8/8)

Academic - Programming

1. Science Mentorship Programme 2018 - Distinction
Research attachment at NUS Engineering with Dr Tang Kok Zuea to develop and test an eye-testing program using C# in Unity - the end goal of the project is to implement it on a mobile truck to provide accessible eye testing to elderly and rural communities
2. Research@YDSP 2019
Programmed a voice controlled tank simulator that provides realistic interaction between commanders and a simulated blue-force military tank entity.
3. International Mathematical Modeling Challenge 2018 + 2019 - Distinction
2018: I used Python to write a program that could find the best hospital for a patient, based on various qualities of each hospital's departments, the severity and urgency of the care required, and the distance between the patient and the hospital.
2019: I used multiple linear regression in Python to create a model that would predict the carrying capacity of the Earth. This was based upon world data for land use, population, livestock, food, water and energy consumption.
4. Internships at Tinkercademy in October 2019 and December 2020: Tinkercademy is an edutech company focusing on educational products that teach children and teens programming. They also offer programming lessons in schools. Throughout my internships I programmed various things for showcase, like hacking an iRobot Roomba and some games on Processing.py and MicroPython for demonstrations at a fair.
5. I have represented the Methodist Girls' School Infocomm CCA in various competitions, and gained competence in game development and math in Python, micro:bit, Arduino, Javascript, Unity3D, 3D printing and computational thinking. I also enrolled in hackathons outside of school, and learnt other computer systems and languages on my own. In addition, I am fluent in C#, C/C++, Microsoft UWP, VR and AR systems, robotics in Lego Mindstorms, as well as app development in Thunkable and MIT app inventor.
6. Startathon Junior 2018 - Best Prototype Award
Programmed an electronic prototype of a habit-tracking water bottle using Arduino within a few hours

Community Service

1. Writer at Meet the People Sessions in Braddell Heights (Marine Parade GRC) 2020-

Listening to people's problems and writing letters to the appropriate ministries to expedite their appeals, observing their consultations with the MP, discussing their problems with MP (Mr Seah Kian Peng)

2. Befriending the elderly at Filos Community Services 2020-
3. Volunteer tutor at the Childrens' Wishing Well 2018-2019

I have been a math and science tutor at the Childrens' Wishing Well for primary school children from underprivileged families since 2019.

4. STEP Sunburst Science Educators' Programme 2017

As an ambassador of Science Centre Singapore, I organised educational activities for public outreach and educated the public on various scientific concepts.

5. Mission trip to Yunnan, China in 2018

Improved learning facilities at Happy Ark, a centre dedicated to providing daycare and tuition services for children of migrant workers.

6. ACSI Interact Service Club 2020-2021

Indirect service to St. Luke's Hospital by writing cards to patients, making DIY decor for hospital wards
Creating English teaching materials for primary schools in rural areas of China
Online English tuition to middle school children in rural areas of China

Leadership

1. Vice President of Science Research Challenge 2020-2021

Training secondary school students, preparing them for the Junior Science Olympiads

Raising the profile of science among students with outreach programmes, lowering barrier to entry by compiling and creating reading materials

2. Nominated as school Peer Helper 2020-2021 and Class Welfare Representative 2020

Advocate for mental health awareness in school

3. STEM Programme Director at Budding Minds 2020-2021

Budding Minds is a non-profit organisation providing supplementary tuition services to students in need. As the STEM Programme Director, I liaise with internal volunteers and external organisations to conduct a STEM engagement programme for our beneficiaries.

4. Executive Committee in Youths for Causes Projects - Project Pluto (Head of Logistics) in 2018, Project Meraki (Head of Publicity) in 2019

Organised logistics for publicity and fundraising events, such as student-run concerts

5. Class chairperson 2019

Others

1. Mensa member
2. Krav Maga, can skateboard, speaks German, plays the saxophone
3. Gifted Education Programme in Upper Primary
4. Completed the Camino de Santiago 2018 (received Compostela)
5. Represented Singapore in the International Kids' Lit Quiz 2016 in Auckland