

# Cervon Wong

Year 5 student at NUS High School of Math and Science

**Majors:** Math, Biology, Chemistry, Physics

**Honours:** Computer Engineering

**CAP:** 4.7 / 5.0 (2021 Sem 2)

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## Projects

**Web app that enables trainees with mild intellectual disability to learn work skills independently**

Jul 2021 – Jan 2022

- Worked directly with instructors to learn about issues that trainees and instructors face.
- Ideated with two teammates to ensure product features accurately solve trainees' issues.
- Designed accessibility features to make web app easier and more intuitive to use.
  - I chose to use images and included buttons to listen to UI text to aid illiterate trainees.
- Architected back-end services model and coded front-end app using Flutter from scratch.
- Distributed app onto trainees' iPads.
- Hosted app live on the web for public demo (<https://mint-def9e.web.app/#demo>).

**Machine learning model that monitors foreign ships near Singapore**

Jun 2021

- Optimised convolutional neural network layers to improve recognition accuracy.

**Algorithmic flashcard scheduling app for learning retention**

Jan 2019 – Jun 2021

- Connected Android app to SQL database to keep track of users' learning data.
- Implemented AI that processes users' learning data to optimise learning schedule.

## Awards & Achievements

**NUS High Commendation Award for Service 2022**

Mar 2022

**FINALIST – Tech for Good Innovation Challenge 2021**

Nov 2021

- Entered the finals of a national university-level six-month engineering contest.
- Teamed up with two students, proposed an app solution to tackle a problem statement.
- Implemented and presented minimum viable product of the app at the festival.

**CHAMPION – YDSP Science and Tech Camp (AI using Satellite Images)**

Jun 2021

- Coded and presented a machine learning model to bolster national security in a team.
- Represented NUS High School and emerged champion against 13 other IP schools.

**Best in Computer Studies – NUS High School Subject Book Prize**

Mar 2019

## Technical Skills

**Front-end/Back-end:** Flutter, Java, HTML/CSS/JS/TS, Firebase Cloud Firestore, SQL

**Machine Learning:** Python, NumPy, Pandas, TensorFlow

**UI/UX Design:** Figma, Mobile design, Web design, Accessibility, Responsiveness

**Tools & Environments:** Git and GitHub, VSCode, IntelliJ, Jupyter

## Courses & Workshops

**AWS DeepRacer League Workshop**

Oct 2021

- Learnt reinforcement learning techniques.
- Trained a reinforcement learning model to drive a 1/18th scale autonomous race car.

**BrainHack 2021 XRperience Hackathon**

Jun 2021

- Learnt how to design and develop virtual reality experiences.

**Introduction to Flutter Development Using Dart Course**

Nov 2020

- Learnt how to code cross-platform apps for Android, iOS, Web, Windows, etc.