Cervon Wong

Year 6 student at NUS High School of Math and Science

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Education

Majors in Math, Phys, Bio, Chem w/ Computer Engineering Honours @ NUS High School (2018 - 2023)

• Graduated with HIGH DISTINCTION and a CAP of 4.9 / 5.0.

Computer Engineering (CS1010C/CG1111A/CG2111A) @ National University of Singapore (2022 - 2023)

• Designed and built robotic vehicle enabling odometry, laser imaging, serial wireless communications, and remote controlling using ROS, Arduino, Raspberry Pi, and C++.

Experience

Robotics Engineer Intern @ Fabrica Al — Skills: Linux, C++, ROS, Al

(Nov 2023 - Present)

Tested and functionalised autonomous robot in a fast-paced timeline.

Web Developer & Designer for Celebrate with Cake — Skills: Web dev, UX

(Oct 2023 – Present)

- Worked closely with founder to craft new web presence after consolidating their social posts and blogs.
- Coded responsive website in Vue from scratch, configured new domain and email, and deployed it.

Co-Founder & Tech Lead of Singapore Biology League

(Aug 2023 – Present)

• Leading the creation of a new platform to host 400+ students solving 50+ puzzles at the same time.

Workshop Organiser & Presenter @ BuildingBlocs — Skills: Web dev, UX

(Dec 2022 - Nov 2023)

• Co-led workshops on web dev and UX in annual CS conference to audience of 100+ students.

Research Intern @ A*STAR - Skills: Statistical data analytics

(Mar - Dec 2022)

• Conducted comprehensive analysis using R and uncovered novel findings from metagenome of 373 skin microbes associated with atopic dermatitis from skin samples of 80+ Singaporean children.

Software Engineering Intern @ DSTA — Skills: Robotics, Simulation, Linux

(May – Jun 2022)

• Spearheaded integration of a drone trajectory planning and optimisation frameworks into internal simulation engines by analysing data flow and interfaces.

Selected Projects

Mobile app w/ household utility analysis and gamification for sustainable living open (Apr - Oct 2023)

- Ideated, designed, and built cross-platform app from the ground up for a 6-month hackathon.
- Researched in a team, tackling key problems in the utility sector, to contribute to the Green Plan.
- User-tested app with peers to improve user experience.

Web app for intellectually disabled chefs to learn work skills independently Open (Jul 2021 – Jan 2022)

- Architected back-end services and coded front-end app using Flutter from scratch.
- Innovated accessibility features (e.g. TTS) to enhance ease of use and intuitiveness of the web app.
- Deployed app to trainees and hosted a public demo at a national university-level 6-month hackathon.

Machine learning model that monitors foreign ships near Singapore

(Jun 2021)

Optimised convolutional neural network layers to improve recognition accuracy by 50%.

Awards & Achievements

AP Scholars Award with Distinction (All 5s in Calc AB/BC, Stats, Physics 1, Chem, Bio)	(Jul 2023)
GOLD (Top 7) – Singapore Linguistics Olympiad	(May 2023)
GOLD (Top 5) – Singapore Biology Olympiad	(Jan 2023)
CHAMPION - SUTD Research Hackathon (Julia numerical analysis hackathon)	(Mar 2023)
SILVER - Singapore Science and Engineering Fair (For A*STAR Research Project)	(Mar 2023)
FINALIST - Tech for Good Innovation Challenge 2021	(Nov 2021)
CHAMPION - YDSP Science and Tech Camp (All using Satellite Images)	(Jun 2021)
BEST in Computer Studies - NUS High School Subject Book Prize	(Mar 2019)