# **QING YANG**

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### **Education**

Harvey Mudd College, Claremont, CA

Expected May 2023

- Bachelor of Science, Computer Science
- Courses: Introduction to Computer Science, Principles of Computer Science, Programming Practicum, Autonomous vehicles, Financial Economics, Probability and Statistics

Anglo-Chinese School (Independent), Singapore

Jan 2017 - Nov 2018

Nan Hua High School, Singapore

Jan 2015 - Nov 2016

- Singapore Ministry of Education Full Scholarship for 4 consecutive years
- **Dean's List** of Math and Chemistry; **Level Top** in Math, Chemistry, Biology and Physics
- European Organization for Nuclear Research: selected participant of quantum Physics program

#### **Skills**

Python>Java=JavaScript=HTML; Darknet Neural Networks, Adobe Photoshop; English, Mandarin, Spanish.

# **Related activities**

RoboNation-RoboSub competition

Sep 2019 -Present

 Manage Vision project which enables our autonomous underwater vehicle to navigate under water and accomplish a series of game tasks. Utilize Darknet Neural Networks and C & YOLO: Real-Time Object Detection. Code with Python.

## Study Cloud website development

Sep 2019 -Present

- Code with JavaScript D3 library and HTML for front-end web development. Study Cloud is a website for sharing student resources, built to benefit generations of future high school and college students.

Personal website

Oct 2019 -Present

- Code with JavaScript and HTML for an interactive and animated portfolio website.

# Capture the Flag (CTF) cybersecurity competition

Sep 2019 -Present

- Compete in the areas of web vulnerabilities, forensics, binary exploits/reverse engineering, cryptography, and networking.

**HMC Activities**: Robotics Team, Study Cloud Club, Makerspace Club (engineering projects), Cybersecurity club, Women's Association of Computing Machinery, Society of Women Engineers

Sep 2019 -Present

High School Activities: National Science Experiment Big Data Challenge; Google Science Journal Challenge;

MAKE Fair (for science innovations), **Organizer**Online course: Java Programming Masterclass for Software Developers by J

May 2017 - Sep 2018

Jul 2019 - Present

**Online course: Java Programming** Masterclass for Software Developers by Tim Buchalka and **Machine Learning** offered by Stanford

**Research**: wind mechanics, Bisphenol-A degradation via advanced oxidation process, tea residue as an alternative to remove copper from wastewater, Game Theory in applied Mathematics

Jan 2017 - Nov 2018

**Patents**: eye surgery recovery mask, energy-saving trash bin, reconfigurable power strip 2017 - 2018

### **Internship**

Cambodian Organic Agriculture Association, Marketing intern	May 2017 - Jun 2017
Wings College Prep (US), Marketing intern	Mar 2017 - May 2017

#### **Volunteer**

Aurora Project for mentally challenged individuals, Founder	Jan 2017 - Present
Son-Rise Program (US) for autistic children, Trained volunteer	May 2017 - Jun 2018
Dorm Council, Administration committee	Feb 2016 - Oct 2018
Hand-in-Hand Project (neighborhood tutoring), Founding member	Jan 2016 - Dec 2016