

# BERNARD TAM

*Student, programmer and music producer*



📍 From Hong Kong, currently studying in Sydney, Australia

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## CURRENT INTERESTS AND PURSUITS

Having been fascinated by technology from a young age, my current interests include computing and programming. I have designed mobile and web applications for my former school, as well as for my local parish. In my own time I enjoy bug bounty hunting for corporations such as Google and Apple, finding vulnerable code in their software and websites that could be exploited and reporting it to them with good intent through their product security department. I dabble a little in creating electronic music as well, and follow the latest technology news to keep abreast of the fast-paced developments in today's technology industry.

Recently, I have also started hosting a website to exhibit some of my most popular personal projects, such as the Hong Kong and Macao aggregated weather signal warning and alert system, and a countdown for estimating the arrival time of the next South Island Line train in Hong Kong. To me, programming is not just a merely valuable skill that brings in monetary return, but a vital instrument that can bring change to the world, if used justly, ethically and to its greatest potential. These personal projects were started with the intent of benefiting the general public of Hong Kong and its surrounding regions. The link to my website is [\[bernent.co.uk\]](http://bernent.co.uk).

I was part of my former school's class and inter-class debates and mathematics competitions and was selected by my former school in March 2017 to take part in the South East Asian Mathematics Competition in Jakarta. I was also selected by my former school's Department of Computer Science for two consecutive years to attend the Canadian Computing Competition hosted in the University of Hong Kong.

The following are what I have achieved in my four consecutive years of attending the **Johns Hopkins University Center for Talented Youth**, a highly intensive academic summer camp from 9am to 9pm:

## COURSES TAKEN

### 2017 Fast-Paced High School Chemistry

I was awarded excellent performance in this programme. I was commended for identifying trends in metal flame tests and for connecting the flame colours to the energy they contain. I also made connections about solubility rates and polarities and learnt how humidity affects accumulation of static electricity.

### 2016 Cryptology

I was awarded excellent performance for mastering mathematical concepts to decrypt ciphertext messages, studying monoalphabetic ciphers, and shared a more efficient method to converting numbers from hexadecimal to binary. My ability to compare the similarities and differences between classical and modern cryptosystems was commended as well.

### 2015 Fundamentals of Computer Science

I was awarded outstanding performance for mastering binary, hexadecimal and other numbering systems, Boolean logic and web design with HTML and CSS. For my final project, I worked with a partner to recreate the popular Candy Crush game and fashioned an entertaining program using complex multi-dimensional arrays and nested loops.

### 2014 Introduction to Robotics

I was awarded outstanding performance for mastering hardware and software skills. I engineered robots to run through difficult courses, employing sensors, motors, and software to control them. My prior knowledge of Bluetooth was also much valued by the instructors and classmates.

## STRENGTHS AND WEAKNESSES

I do tend to get engrossed while I am working and have overlooked others' suggestions in the past. This is something that could do with improvement, as I understand it is valuable to be open to a variety of ideas and perspectives.

I am an excellent problem solver, troubleshooting issues and difficulties tirelessly. I believe that there is always a way to make something work, and that all that is required is time and patience, or even a better idea. I am not afraid to start anew if something is not yielding results anymore.

I persevere in challenging times, especially when running long distance races. I participated in the Kai Tak Airport 10km Race and was awarded third place in my category. I also raised funds for The Exodus Road, a charity combating human trafficking, by attending Peak24, an annual race around The Peak in Hong Kong and running 32km.

Towards my friends, I am generous, loyal, and helpful. This is extended to the community as well, having helped my church with technology issues and designing applications. I was also an altar boy for several years, a lector who led prayers, and assisted the priests at Catholic mass and other church functions.

I personally believe that it is right and just that we give back to society, through any means possible, especially because we often take things too much for granted in life.

## CAREER ASPIRATIONS

I have always gravitated towards computing and technology. As such, I endeavour to work in computer programming, cyber security, or artificial intelligence fields in the future. Of course, I am open to different options. The world technological landscape is ever changing and there will be more exciting problems to solve.

## INTEREST IN ACADEMIC SUBJECTS

For your information, I have sat for the IGCSE Mathematics in June 2016 as a private candidate and obtained an 'A' in the examinations. In June 2017, I also obtained an 'A' for the IGCSE Computer Science examination.

The following are the qualifications I have obtained in June 2018:

## ACADEMIC RESULTS



CIE IGCSE International Mathematics (0607)

Taken in June 2018, obtained an 'A'



CIE IGCSE Physics (0625)

Taken in June 2018, obtained an 'A'



CIE IGCSE Computer Science (0478)

Taken in June 2017, obtained an 'A'



CIE IGCSE Computer Science (0478)

Taken again in June 2018 in school instead of as a private candidate, obtained an 'A'



CIE IGCSE Mathematics (0580)

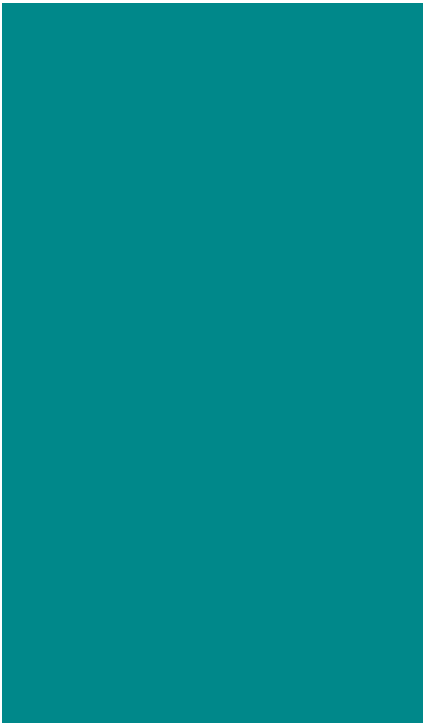
Taken in June 2016, obtained an 'A'



CIE IGCSE Additional Mathematics (0606)

Taken in June 2018, obtained an 'A'

CIE IGCSE English (as a) First Language (0500)



Taken in June 2018, obtained an 'A'



CIE IGCSE French Foreign Language (0520)

Taken in June 2018, obtained an 'A'



CIE IGCSE Economics (0455)

Taken in June 2018, obtained an 'A'



CIE IGCSE Biology (0610)

Taken in June 2018, obtained an 'A'



CIE IGCSE Chemistry (0620)

Taken in June 2018, obtained an 'A'



CIE IGCSE English Literature (0486)

Taken in June 2018, obtained a 'D'