

# Christopher Goh

COMPUTER SCIENCE · MACHINE LEARNING

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## Education

### River Valley High School

Singapore

GCE A' LEVELS, INTEGRATED PROGRAMME

2010 - 2016

- 2 H1 Subjects: General Paper, Project Work
- 4 H2 Subjects: Mathematics, Physics, Chemistry, Economics
- Total University Admission Score: 85/90

## Experience

### Singapore Army

Singapore

PROJECT CLERK, LEADERSHIP BRANCH, HQ TRAINING & DOCTRINE COMMAND

Mar. 2017 - Jan. 2019

- Awarded the 2018 Army Full-time National Serviceman of the Year Award, Commander TRADOC Coin, Commander ALTI Letter of Appreciation, Commanding Officer 1st Commando Battalion Coin, Platoon Best Recruit.
- Produced LEARNet Video Courseware for junior commanders' leadership training.
- Designed and ran several pinnacle Army command courses for Commanding Officers and Brigade Commanders.
- Organised formation anniversary event as Head of Logistics and Chairman in 2017 and 2018 respectively.
- Conceptualised the Leader Strong Campaign – an initiative to strengthen leadership development efforts across the Army.
- Motivational Speaker for new SAF recruits at BMTC School V.

### DSO National Laboratories

Singapore

PART-TIME RESEARCH STUDENT (ARTIFICIAL INTELLIGENCE)

Jul. 2015 - Apr. 2016

- Developed a Context Aware Web-mining Engine which used Natural Language Processing techniques to extract key features of input documents, fetch highly-similar documents, and perform data fusion & visualisation for counter-terrorism profiling & disaster monitoring.
- Presented and published research paper "Context Aware Web-mining Engine" in the IRC-SET Science Conference 2016.
- Awarded a Bronze award at the Singapore Science & Engineering Fair 2016.
- Presented to senior management at DSO National Laboratories and at YDSP Congress 2016.

### Nanyang Technological University (School of Humanities & Social Sciences)

Singapore

PART-TIME RESEARCH STUDENT (COGNITIVE SCIENCE / SOFTWARE ENGINEERING)

May. 2015 - Apr. 2016

- Created a front-end browser-based JavaScript game to measure human reaction times in cognitive tasks, a backend NodeJS server for data collection, and analysed collected data with R.
- Received a Silver Award at the NRP Symposium 2016 for research paper "Creating Online Computer Games for Cognitive Training".

### DSO National Laboratories

Singapore

PART-TIME RESEARCH STUDENT (CRYPTOGRAPHY)

Jul. 2014 - Apr. 2015

- Cryptanalysed the Crypto1 cipher and explored different factors which could affect the speed of algebraic cryptanalysis.
- Finalist at the Singapore Science & Engineering Fair 2015.

## Publications & Research Work

1. Christopher GOH and KOAY Tze Min. Context Aware Web-mining Engine. IRC Conference on Science, Engineering and Technology (IRC-SET), May 2016. Retrieved from [http://ircset.org/anand/2016papers/IRC-SET\\_2016\\_paper\\_S5-4.pdf](http://ircset.org/anand/2016papers/IRC-SET_2016_paper_S5-4.pdf).
2. Christopher GOH, Jasmine LIEW and Melodies SIM. Cryptanalyzing the Crypto1 Cipher. (2015, January 5). Retrieved from <https://chrisgzf.github.io/reports/Crypto1.pdf>.
3. Christopher GOH. Creating Online Computer Games for Cognitive Training. (2016, April 5). Retrieved from <https://chrisgzf.github.io/reports/CognitiveTraining.pdf>.

## Extracurricular Activity

### River Valley High School - Infocomm Club

Singapore

CLUB PRESIDENT

2010 - 2016

- Led a club of over 40 members in robotics, programming and multimedia competitions.
- Club clinched multiple consecutive national championships and represented Singapore in several international tournaments.
- Organised robotics competitions to inculcate technical literacy and interest in primary and secondary school students.

### Gen-R

Singapore

FOUNDING MEMBER & DIRECTOR OF PROGRAMMES

Jan. 2014 - PRESENT

- Founded non-profit society to develop youths in leadership, volunteerism and philanthropy through community outreach programmes, and increase IT literacy in the community.
- Organise tech competitions / workshops / hackathons for students and charity organisations. Events include the Singapore Tech Challenge, Singapore Makers' Challenge, Robotics Workshop for members of SPD Singapore (previously 'Society for the Physically Disabled').

### Boon Lay Community Centre

Singapore

HEAD OF PUBLICITY - BOON LAY COUNTDOWN 2015 & 2016

Oct. 2014 - Jan. 2016

- Worked with Grassroots leaders in organising the annual heartland new year countdown event, attended by over 30000 Boon Lay residents.
- Led a team of 10 in designing all marketing collateral and multimedia displays.

### River Valley High School - Y.LEAD Seminar 2015

Singapore

VICE-CHAIRPERSON OF PUBLICATIONS COMMITTEE

Jan. 2015 - Jul. 2015

- Led 20 members in the publicity operations of a week-long international youth leaders summit.
- Set up event domain and WordPress CMS functionality for online publicity.

## Skills

<b>Proficient</b>	C, Python, Java, HTML, CSS
<b>Exposure</b>	C++, JavaScript, R, LaTeX
<b>Software and Frameworks</b>	Linux, Git, Vim, JetBrains Suite, Visual Studio, TensorFlow
<b>Fields of Interest</b>	Machine Learning, Data Science
<b>Languages</b>	English (Proficient), Chinese (Proficient)

## Honours & Awards

### INTERNATIONAL

2015	<b>Best Research Award 3<sup>rd</sup></b> , FIRST Lego League World Festival 2015	St. Louis, MO, U.S.A
2009	<b>Global Top 6</b> , World Robot Olympiad 2009	Pohang, S. Korea
2007	<b>World Championship</b> , FIRST Lego League World Festival 2007	Atlanta, GA, U.S.A

### DOMESTIC

2015	<b>Edusave Character Award</b> , Ministry of Education	Singapore
2015	<b>Daisy Phay Foundation Award</b> , Ministry of Education	Singapore
2015	<b>Bronze Award</b> , National Olympiad in Informatics 2015	Singapore
2015	<b>Championship &amp; Best Programming Award 1<sup>st</sup></b> , FIRST Lego League Singapore 2015	Singapore
2014	<b>Bronze Award</b> , National Olympiad in Informatics 2014	Singapore
2014	<b>Best Robot Performance Award 1<sup>st</sup></b> , FIRST Lego League Singapore 2014	Singapore
2013	<b>Best Strategy Award 3<sup>rd</sup></b> , National Junior Robotics Competition 2013	Singapore
2013	<b>Best Programming Award 1<sup>st</sup></b> , FIRST Lego League Singapore 2013	Singapore
2012	<b>Best Research Award 2<sup>nd</sup></b> , National Junior Robotics Competition 2012	Singapore
2012	<b>Certificate of High Distinction</b> , Rio Tinto Big Science Competition 2012	Singapore
2012	<b>Certificate of Distinction</b> , Australia Mathematics Competition 2012	Singapore
2012	<b>Certificate of Distinction</b> , UNSW International Competitions & Assessments for Schools (Science) 2012	Singapore
2011	<b>Best Programming Award 2<sup>nd</sup>, Best Presentation Award 3<sup>rd</sup></b> , National Junior Robotics Competition 2011	Singapore