Christopher **Goh**

COMPUTER SCIENCE · MACHINE LEARNING

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Education

National University of Singapore *Singapore*

BACHELOR OF COMPUTING (HONOURS), COMPUTER SCIENCE *Aug. 2019 - 2023*

- Will commence undergraduate studies at School of Computing, NUS in August 2019.

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 (CONSCRIPT) *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 used for training Junior Commanders to lead their men more effectively.
- Organised Ops Staff Admin Course, Battalion Command Course, and Brigade-Level Command Course.
- Organised formation anniversary event as Head of Logistics and Chairman in 2017 and 2018 respectively.
- Conceptualised the Leader Strong Campaign – an initiative to streamline leadership development efforts across the Army to be focused on bridging its leadership gaps.
- Featured in Army Workplan Video 2018, under the Soldier Strong theme.
- Attended the Presidential Garden Reception 2018 @ Istana.
- 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 tool which made use of Natural Language Processing techniques to sift out key features of given input documents, fetch highly-related documents, and perform visualisation on accured data for Counter-Terrorism Profiling & Disaster Monitoring, under the mentorship of Dr Terence Tan from DSO National Laboratories.
- Awarded a Bronze award at the Singapore Science & Engineering Fair 2016.
- Presented and published research paper "Context Aware Web-mining Engine" in the IRC-SET Conference 2016.
- Presented to Assistant Director, Department Head, Program Director, Lab Head at DSO National Laboratories, and at YDSP Congress 2016.

Nanyang Technological University *Singapore*

PART-TIME RESEARCH STUDENT (COGNITIVE SCIENCE / SOFTWARE ENGINEERING) *May. 2015 - Apr. 2016*

- Attached to School of Humanities and Social Sciences, Nanyang Technological University, mentored by Asst Prof Luca Onnis, under the Nanyang Research Programme.
- Created a front-end browser-based JavaScript game to measure human reaction times in cognitive tasks, backend NodeJS server to handle 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*

- Developed a tool which cryptanalysed the Crypto1 cipher, and explored different factors which could affect the speed of algebraic cryptanalysis, under the mentorship of Ms Valerie Choy from DSO National Laboratories.
- Finalist at the Singapore Science & Engineering Fair 2015.

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 education and competitions.
- Club clinched multiple consecutive national championships at the National Junior Robotics Competition, and represented Singapore in several international tournaments during the term.
- Organised robotics competitions to develop technical literacy and interest in primary and secondary school students.

Gen-R
Singapore

CORE MEMBER & DIRECTOR OF PROGRAMMES
Jan. 2014 - PRESENT

- Founded non-profit society with a few like-minded friends to develop youths in leadership, volunteerism and philanthropy through community outreach programs, and to increase IT literacy in the community.
- Organise tech-related competitions / workshops / hackathons for primary, secondary, tertiary students, and charity organisations. Events we organise 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 of all marketing collaterals and multimedia showcases.

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.
- In charge of setting up WordPress CMS functionality for event.

River Valley High School - Science Leaders' Academy
Singapore

MEMBER
2014 - 2016

- Completed and presented 3 research projects at science conferences, competitions, and at a school exchange at Hackensack, NJ, USA.
- Organised science enrichment camps for primary school students to inculcate scientific interest and curiosity in them.

Skills

DevOps	AWS, Docker, Kubernetes, Rancher, Vagrant, Packer, Terraform, Jenkins, CircleCI
Back-end	Koa, Express, Django, REST API
Front-end	Hugo, Redux, React, HTML5, LESS, SASS
Programming	Node.js, Python, JAVA, OCaml, LaTeX
Languages	Korean, English, Japanese

Honors & Awards

INTERNATIONAL

2018	**Finalist**, DEFCON 26th CTF Hacking Competition World Final	*Las Vegas, U.S.A*
2017	**Finalist**, DEFCON 25th CTF Hacking Competition World Final	*Las Vegas, U.S.A*
2014	**Finalist**, DEFCON 22nd CTF Hacking Competition World Final	*Las Vegas, U.S.A*
2013	**Finalist**, DEFCON 21st CTF Hacking Competition World Final	*Las Vegas, U.S.A*
2011	**Finalist**, DEFCON 19th CTF Hacking Competition World Final	*Las Vegas, U.S.A*
2012	**6th Place**, SECUINSIDE Hacking Competition World Final	*Seoul, S.Korea*

DOMESTIC

2015	**3rd Place**, WITHCON Hacking Competition Final	*Seoul, S.Korea*
2017	**Silver Prize**, KISA HDCON Hacking Competition Final	*Seoul, S.Korea*
2013	**Silver Prize**, KISA HDCON Hacking Competition Final	*Seoul, S.Korea*
2013	**2nd Award**, HUST Hacking Festival	*S.Korea*
2010	**3rd Award**, HUST Hacking Festival	*S.Korea*
2012	**3rd Award**, Holyshield 3rd Hacking Festival	*S.Korea*
2011	**2nd Award**, Holyshield 3rd Hacking Festival	*S.Korea*
2011	**5th Place**, PADOCON Hacking Competition Final	*Seoul, S.Korea*

Presentation

DevFest Seoul by Google Developer Group Korea
Seoul, S.Korea

PRESENTER FOR <HOSTING WEB APPLICATION FOR FREE UTILIZING GITHUB, NETLIFY AND CLOUDFLARE>
Nov. 2017

- Introduced the history of web technology and the JAM stack which is for the modern web application development.
- Introduced how to freely host the web application with high performance utilizing global CDN services.

6th CodeEngn (Reverse Engineering Conference)
Seoul, S.Korea

PRESENTER FOR <DEFCON 20TH : THE WAY TO GO TO LAS VEGAS>
Jul. 2012

- Introduced CTF(Capture the Flag) hacking competition and advanced techniques and strategy for CTF

6th Hacking Camp - S.Korea
S.Korea
PRESENTER FOR <METASPLOIT 101>
Sep. 2012

- Introduced basic procedure for penetration testing and how to use Metasploit

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.

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.

Program Committees

2016	**Problem Writer**, 2016 CODEGATE Hacking Competition World Final	*S.Korea*
2013	**Organizer & Co-director**, 1st POSTECH Hackathon	*S.Korea*
2012	**Staff**, 7th Hacking Camp	*S.Korea*
2012	**Problem Writer**, 1st Hoseo University Teenager Hacking Competition	*S.Korea*
2012	**Staff & Problem Writer**, JFF(Just for Fun) Hacking Competition	*S.Korea*