NATHANIEL KIN YEW WONG

computer engineer // public service officer
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Employment

Officer, Singapore Armed Forces   Feb 2015 – Present
Commissioned in 2015 as an Officer in the Republic of Singapore Air Force. Awarded The Singapore Armed Forces Scholarship to pursue undergraduate and graduate studies in Computer Engineering at Northwestern University, USA.

Education

Northwestern University, Evanston IL, USA   Sep 2015 – Jun 2019
BS/MS, Computer Engineering
Cumulative GPA: 3.88 out of 4.00

St. Joseph's Institution, Singapore   Nov 2014
International Baccalaureate Diploma
Score: 42 out of 45 points

Competencies

Project Management	Advanced
Hardware description Languages [VHDL, Verilog]	Intermediate
Web development [HTML, CSS, Javascript, PHP, WebGL]	Intermediate
Programming Languages [C++, Python, MATLAB]	Intermediate
Programming Languages [Lisp, C#, Java]	Novice

Honors and Awards

Dean's List (High Honors), Northwestern Univ.	2015, 2016, 2017, 2019
Dean's List (Honors), Northwestern Univ.	2016, 2017, 2018, 2019
The Singapore Armed Forces Scholarship	2015

Design Projects

Telegram bridge bot   2018
Designed a fully playable online multiplayer game on using the Telegram Bot API. Users are able to play remotely using their own Telegram account.

'Floating' bridge game   2017
Used the p5.js Javascript framework to prototype the graphical user interface and game engine of a single player game of 'floating' bridge, a four-player card game commonly played in Singapore.

Webcam system design   2017

Made for a design class. Worked in a team of three to build a simple web camera from component parts, and a simple controller for the camera. The camera was connected to the internet via a WiFi chip and microprocessor and capable of live video streaming via a HTML page.

'Kraken' Telegram chat bot   2016
Wrote a PHP chat bot for the messaging app, Telegram. Uses a simple form of natural language processing to provide funny replies to the user it is conversing with. Wrote an simple API to easily modify username and keyword sensitivity lists so that the bot could respond in the context of a group conversation.

Extra-curricular

Vice President of Public Affairs, Residential College Board   Mar 2017 – Mar 2018
Vice President of Inter College Relations, Residential College Board   Apr 2018 – Jun 2018
Conducted affairs for a board representing over 1000 residential college members in the university. Organized intramural sports league games and other inter-college events. Managed the website, mailing lists and social media for the Executive Board. Produced promotional flyers and posters for events.

President, Shepard Residential College   Mar 2016 – Mar 2017
Academic Chair, Shepard Residential College   Mar 2017 – Sep 2017
Treasurer, Shepard Residential College   Sep 2017 – Mar 2018
Organized social events and promoted faculty-student interactions in a residential college of about 90 student members and 30 faculty and graduate fellows.

Treasurer, Global Engineering Brigades   Mar 2016 – Mar 2017
Managed financial activity of the student group. Helped to fundraise launching student-led engineering service trips overseas. Led local service efforts for the poor in Evanston, IL.

Member, NU Robotics   Sep 2015 – Jun 2016
Was part of a working group that explored the behavior of six-legged robots and their ability to overcome obstacles or rough terrain.