Chloe SEAH, SEAH Yi Yi

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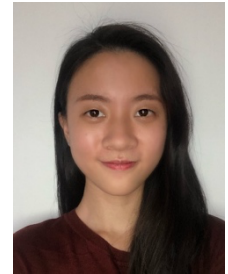Email: seah11chloe@gmail.com / chloeseah@u.nus.edu
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Portfolio Page: https://chloesyy.github.io/personal-portfolio/

Education

Aug 2019 - Present	**National University of Singapore** Bachelor of Computing (Honours) in Computer Engineering *(Course details in Appendix A)*	Singapore
Jan 2017 - Dec 2018	**Hwa Chong Institution** • Singapore-Cambridge General Certificate of Education Advanced Level • Subjects: H2 Physics (A), H2 Chemistry (A), H2 Mathematics (A), H2 Economics (A), H1 General Paper (C), H1 Project Work (A), H1 Chinese (A)	Singapore

Work Experience

Jan 2021 – July 2021	**Gigacover** *Product Software/Data Engineer* • Contributed greatly towards the Data Team as the only employee/intern in the team for the first half of the internship. Cleaned up and restructured the database for readability and analysis • Set up reporting database for reporting of company's status to investors. Created data visualization charts for reporting of company's data to country managers and business intelligence purposes. This made it easier for country managers to understand how the company is performing. • Automated user update to Mailchimp's user database. This relieved the work on the business team as they no longer have to manually import Gigacover's new customers into Mailchimp's mailing list. • Created communications module to facilitate communications (emails, SMS, Whatsapp etc) with clients. This reduces the amount of repeated code which implements the same thing, and also makes it easier for use.	Singapore
Jan 2019 – July 2019	**P & Js Gift House** *Administrative Assistant* • Developed and updated spreadsheets and databases to track, analyze and report on performance and sales data. This increased efficiency in the company as everything is digitalized, allowing the staff to refer to the documents easily without having to search for physical copies. • Prepared packages for shipment, pickup and courier services for prompt delivery to customers. This greatly expedited delivery time to customers as I was more tech-savvy in the company, allowing me to prepare packages much faster.	Singapore

Scholastic Achievements/Extracurricular Activities

Jan 2021 – Present	**Hackathons** • Participated in NUS Hack&Roll 2021 • Participated in Shopee Ultra-Hackathon 2021 – managed to achieve top 96, created a compare feature to help users compare between similar products • Finalists in NUS Fintech Hackathon 2021 • Finalists in NUS Hack for Good 2021 – created a telegram bot to help minimize knowledge gaps for youths towards volunteering • Participated in DB-SNU Hackathon 2021 – passed Round 1 • Participated in NUS HackLife 2021 – designed and created an app, JioLeh, to connect gamers online to find friends to game with. Learnt react-JS on the go and continued learning thereafter to create my own personal website[1] hosted on Github	Singapore
Aug 2019 - Present	**Scholarship** NUS Engineering Scholars Programme (E-Scholars) **Scholastic Achievements** AY2021/22 Semester 1 Deans' List	Singapore
Aug 2019 - Present	**School Contributions – National University of Singapore** • Programmes Committee for NUS Faculty of Engineering ENGINCamp – We planned games and events for the incoming freshmen, which greatly impacted me as I learned to consider various aspects of concerns from other stakeholders such as safety, bonding together as a group and advertising sponsorships. • Orientation Group Leader for NUS Residential College 4's Freshmen Orientation Camp – We led a team of 12 freshmen and introduced the school to them. This allowed me to develop my ability in managing a team, working with fellow leaders and sorting out administrative matters with the organizing committee. • Item I/C for NUS Dance Ensemble Internals – Manage communication between Item Choreographers and Dance Committee to facilitate dance practices and logistics.	Singapore
Aug 2019 - Present	**School Activities – National University of Singapore** • Member of NUS Dance Ensemble – Dance Ensemble practices a new genre of dance which I have never tried before, which tested my determination to stay on and perseverance to successfully execute choreographies. • Member of University Town College Programme (UTCP) in Residential College 4 – This gave me the opportunity to learn to live independently from my family, which greatly developed soft skills such as living and working in a community. • Partipated in NUS Orbital 2020[2] • Member of NUS Overseas Colleges (NOC) – Learnt entrepreneurship skills and interned at a startup, Gigacover, as a Product Software/Data Engineer, which challenged my limits to learn independently • Member of NUS Chinese Dance	Singapore
Jan 2017 - Dec 2018	**Scholastic Achievements - Hwa Chong Institution** • Outstanding Student Award for academic excellence, leadership qualities and community involvement • Hwa Chong Diploma with Distinction for academic excellence, leadership quality and community involvement • Edusave Scholarship for Integrated Programme Schools	Singapore
Jan 2017 - Dec 2018	**School Contributions and Activities - Hwa Chong Institution** • Activities I/C of Athena Faculty Committee 17/18 – This greatly developed soft skills in working in a team, as I worked in a team of 16 to bring several events to success for a faculty of around 250 people.	Singapore

- Overall-in-charge for Athena Faculty CIP 2018 – This gave me the opportunity to learn to adapt quickly and find solutions as fast as possible, since last minute changes were countless. Also learnt to communicate effectively within a team and while liaising with external organizations,
- Member of Stage Management Committee for Dance Night 2018 – I learnt greatly from this as my committee had to lead all dry runs and the actual event, which meant there was no room for mistakes as it would impact about 100 dancers.
- Class Chairman of 17S68 in 2017/18 – Organised class outings for regularly for the class to rewind and relax from exam stress, as well as to forge stronger bonds and create memories as a class
- Member of Music and Dance Society

Skill Sets & Proficiency

Office Productivity	Microsoft Word, PowerPoint	Proficient
	Microsoft Excel, Publisher	Intermediate
Multimedia	Adobe Photoshop CS2	Basic
Web	HTML, CSS	Intermediate
	Django	Intermediate
	Node.js, Heroku	Basic
	React-JS	Basic
Database	PostgreSQL	Intermediate
	SQL	Intermediate
Programming	C	Proficient
	C++	Intermediate
	C#	Basic
	Java	Intermediate
	Python	Proficient
	gRPC	Basic
Scripting	JavaScript	Intermediate
Markup	XML	Basic
Operating Systems	Windows 9x, 2000, XP	Intermediate
	macOS X	Intermediate
Hardware Design	Verilog	Intermediate
	Circuit design	Basic
Non-technical Skills	Project Management	Basic

Language Proficiency

Spoken	English – fluent; Mandarin – fluent
Written	English – fluent; Chinese – fluent

Degree: Bachelor of Computing (Honours) in Computer Engineering
Cumulative Average Point: 4.71 / 5.00

Year	Level	Course Description	Grades
Aug – Nov 2019	Year 1 / Semester 1	Programming Methodology	S
		Discrete Structures	A-
		Engineering Principles and Practice I	A
		Engineering Calculus	A+
		Differential Equations for Engineering	A
		Quantitative Reasoning	A
		Colour: Theory, Meaning and Practice	S
Jan – May 2020	Year 1 / Semester 2	Engineering Principles and Practice II	A-
		Data Structures and Algorithms	A-
		Digital Design	A-
		Linear Algebra for Engineering	A
		Probability and Statistics	A
		Thinking in Systems: Diseases and Healthcare	CS
		Discourse, Citizenship, and Society	S
Jun – July 2020	Year 1 / Special Term 2	An Undefeated Mind: An Experiential Inner Reengineering Approach	A-
		NUS School of Computing Orbital 2020[2]	CS
		DYOM – CS50W Web Programming with Python and Javascript	CS
		DYOM – W3Cx HTML5 and CSS Fundamentals	CS
Aug – Nov 2020	Year 2 / Semester 1	Transistor-level Digital Circuits	A-
		Computer Organization	A
		Real-Time Operating Systems	A-
		Database Systems[4]	A+
		Software Engineering & Object-Oriented Programming[3]	A-
		Effective Communication for Computing Professionals	A
		Singapore – A Smart Nation in Context: IoT & Big Data	S
		Life, the Universe and Everything	A-
Jan – May 2021	Year 2 / Semester 2	NUS Overseas Colleges – Internship at Gigacover	CS
		New Venture Creation	B+
		Entrepreneurship Practicum	CS
Aug – Nov 2021	Year 3 / Semester 1	Introduction to Artificial Intelligence	A
		Computer Vision and Pattern Recognition	A
		Design and Analysis of Algorithms	A
		Korean 1	A+
		Pathways to Engineering Leadership	CS
		DYOM – CS50AI Introduction to Artificial Intelligence	CS
Jan – May 2021	Year 3 / Semester 2	Computer Engineering Capstone Project[5]	B+
		Big Data Systems for Data Science	A
		Signals and Systems	A+
		Computer Networks	A
		Natural Language Processing	A

Additional Information

[1] **Personal Website** is a self-initiated project which I started after participating in a hackathon with some of my friends and learnt React-JS as a result. I continued to learn more through Youtube and documentations to create my own personal website, which is fully designed by me and contains links to several of my online profiles. I plan to continue developing the website in my own free time.

[2] **NUS Orbital 2020** is a self-directed, independent work course which allows students to partner up and propose, design, execute, implement and market their technological project of interest to peers and faculty. With my partner, we created an educational game for lower-secondary students, making use of the active recall technique for revision. In the project, I had not only learned how to use Unity from scratch, but also coding in C#, video-making and even photo-editing skills. We learned to test our product intensively to consider for bugs as the project grew larger and less room was available for mistakes.

[3] The **Software Engineering Project** focuses on using good software designing, object-oriented programming and project management skills. A product is developed for users who can type fast and prefer typing over mouse/voice commands. For my team, a book review tracker, Quotesify, was made for avid readers to help them in their reading activities. Quotesify allows users to add books and quotes, categorize them and even rate books after completing them. A progress tracker is also available to help users track their reading journey. In the project, I contributed to the book management system, which is a core feature in the application. One of the most memorable experience is the project management aspect, where we learnt to properly merge our codes together using GitHub's pull request and branching feature. This streamlined the way we worked and allowed us to contribute effectively.

[4] The **Database Project** requires students to create a website for Pet Caring Services, making use of PostgreSQL, Node.js and Heroku for deployment. Having experience in web designing and building from my summer online courses, I was mainly in charge of creating the webpages and its user interface. As the rest of the teammates had limited experience in web designing, I also played the role of a consultant and helped out as much as possible.

[5] The **Capstone Project** is a design project where students were required to recreate a laser tag game in groups of 5. In the team, I took charge of AI software and hardware gesture recognition. Different gestures such as grenade throwing, bullet reloading, shielding and logout actions needed to be recognised. Some of the software/tech used include Python for neural network training, C++, Pynq, Xilinx, Vivado and Vitis ML for hardware programming. I managed to achieve an F1 score of 90% in validation and 80% in real-world testing.