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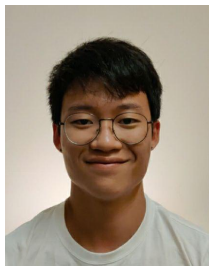

Personal Statement

I am Wei Boon, a computer science undergraduate from National University of Singapore (NUS). I am looking for internship opportunities related to software and technology. My interests and specialization are in distributed systems, backend-development and artificial-intelligence.

About me
My interest in computing began from young age, specifically from my father who is a course manager in system security at the Institute of Technical Education. This passion has led me to where I am now, pursuing a bachelors in computer science, and an ambition to be the best software engineer I can be. Academically I am doing well, being on the *Deans' List* and am on track to graduate with a first-class honours.

I love challenges and have a "never say impossible" attitude when faced with new obstacles. I enjoy taking on new tasks that are complex to challenge myself to see what I can achieve. Often times in programming, there are problems to solve which we have no experience with, but I pride myself in having the confidence and desire to tackle them head on and improve my skills in the process.

Technical Skills
I have vast experience in software engineering, and specialise in back-end development. I have professional experience working with both *SQL* and *NoSQL* databases, notification systems, chat services, search engines, API's, job-scheduling queues and automated testing. I am comfortable contributing as full-stack developer as well, having experience working with various front-end libraries like *React*, *Redux*, *Razor Pages* and *Jinja*.

I also have experience in mobile development. Notably, I have created an expenditure tracking application, *SaveLeh*, as part of *Circles.Hack 2019* Hackathon. It provides analysis of a user's daily spending and scrapes the internet for promotion codes which match their spending habits. Additionally, I have also created a dating application, *Alchemy*, which matches users based on an similarity system which excludes physical characteristics in the process.

I am also interested in artificial intelligence and machine learning, and its potential for problem solving. I have completed the Google Machine Learning Course in my free time. I also picked up Natural Language Processing, by using libraries such as *Spacy* as part of a hackathon, to develop a fake news detection telegram bot. Additionally I have also worked with image processing models, using libraries such as *OpenCV*. Specifically, I built an emotion detecting vlogging device for individuals with mental health issues.

My other technical interests is in distributed systems. Currently I am pursuing a final-year-project on automated verification of distributed systems. Given the heavy reliance on large-scale distributed systems and the high manual effort of formal verification, being able to design push-button verification will definitely have positive real-world applications.

Work / Startup Experience
I had humble beginnings. After completing national service, I worked for no-pay at a local tech start-up: *AutoArmour*. During which I worked directly with the 2 founders, in a small one room office. And although I signed up as a software engineering intern, I ended up playing all sorts of other roles such as marketing, client management and search-engine optimisation copywriting. This experience lighted my interest in start-ups and taught me the fast-paced nature and competitiveness in the industry. As such I understand the need develop quickly and be agile in adjusting to changing requirements.

Since then, I have worked at numerous other companies and have collected a wealth of experience in software engineering. I learnt to be an independent and fast learner, picking up new technologies on my own. I find this to be a crucial skill which allows me to contribute to the development of projects without taking up the capacity of more experienced team members. Every company I have worked at so far has used completely different technological stacks, such as *ASP.NET*, *Node.JS*, and *Flask*. Thus, I am confident I will be able to quickly learn the required technical skills for any job and contribute meaningfully to the company.

Community

I strongly believe in giving back to the community and being an inspiration to others. As a founding member of *Eusoff Hackers,* I lead small teams in creating projects to improve the lives of hall residents. These include: a jersey bidding web application, telegram meal-bot and an online election portal. I have also participated in many social good hackathons, such as *Makerthon* and *CodeForCorona* and achieved stellar response on my innovative solutions. I am also a teaching assistant in NUS, for a software engineering module. This gives me the opportunity to give back to the student body, by imparting my knowledge in programming as well as guiding them through the school coursework.

Education

Aug 2018 - Present
National University of Singapore
Bachelor of Computing (Honours) in Computer Science
(Course details in Appendix A)

Jan 2010 - Dec 2016
River Valley High School
- Singapore-Cambridge General Certificate of Education Advanced Level
- Subjects: H2 Physics (A), H2 Chemistry (A), H2 Mathematics (A), H2 Economics (B), H1 Project Work (A), H1 General Paper (C)

Work Experience

Jul 2020 - Present
Anywhr (NUS Overseas Colleges)
Full Stack Software Engineering Intern
- Design and develop anywhr.co and internal trip planning tool
- Multi-channel notification system (WhatsApp, Telegram, Email, Messenger)
- Build data-acquisition pipeline for large scale query and scraping of travel related data
- Build Machine-learning models for URL classification
- Originally part of NUS NOC New York, converted to NOC Singapore due to the covid-19 pandemic
- Tech Stack: React, Redux, Loopback, PSQL, Knex, Keras, internal.io, AWS RDS, Scrapy, ElasticSearch, Spacy

May 2020 - Jul 2020
M1 Limited
Software Engineering Intern
- Assist in migration of dataware hose reporting system
- Design and develop web report application
- Tech Stack: RHV, ReportServer, MySQL, JasperReport, BIRT, Tomcat

Jan 2020 - May 2020
National University of Singapore
Teaching Assistant – CS2103 Software Engineering
- Supervised 2 teams in developing command-line based applications written in Java
- Topics included: UML, object-oriented programming concepts, testing, documentation, deployment

Oct 2019 - May 2020
Truffle Technologies
Backend Software Engineering Intern
- Build and support all backend services using ExpressJS
- Built real-time notification service using Firebase Cloud Messaging and Redis-Backed Bull Queue
- Built docker services (chat, video, notifications)
- Tech Stack: mongoDB, expressJS, Docker, Firebase Cloud Messaging, AWS Cloud Services

May 2019 - Aug 2019 **Thatz International Pte Ltd**
Full Stack Web Development Intern
- Develop full MVC web features
- Built generic repositories for backend service layer
- Automated front-end testing using Selenium
- Application-wide exception handling and logging
- Tech Stack: C#, ASP.NET, SQL, Telerik, Selenium, Elastic Search, Razor Pages, Xamarin, Azure DevOps

Feb 2018 - May 2018 **Meltwater**
Junior Media Analyst
- Wrote bash script to automate the downloading of webpages
- Generate consumer insight reports using data analytics and social media monitoring

Dec 2017 – Feb 2018 **Autoarmour / Gigacover**
Backend Software Engineering Intern
- Geofencing and tracking of vehicle GPS locations
- Vehicle data processing and analysis
- Tech Stack: Python, PSQL, MongoDB, Django

Scholastic Achievements/Extracurricular Activities

Jul 2020 - Present **NUS Overseas College (NOC)**
- Originally New York Batch 14, but converted to Singapore program due to covid-19 pandemic
- Internship at Anywhr, a bespoke trip planning & itinerary curation service, as full-stack web developer
- Picked up crucial entrepreneurship skills

Aug 2018 - Present **Scholarship**
Singapore Industry Scholarship (M1 Limited)

May 2020 **CodeForCorona Virtual Hackathon Champions**
- Online competition to build solutions during COVID-19 pandemic
- Developed a news verification telegram bot (@stopfakenewsbot) based on Spacy NLP models and crowd-sourcing news validity.

Jan 2020 **Dean's List**
Received the Deans' List award from NUS School of Computing for stellar academic performance (top 5% of the cohort)

Jan 2020 **NUS Makerthon 2020 1st Runner Up**
- Hardware-based hackathon focusing on social interactive design
- Developed AI video journaling soft toy for people with depression
- "Understands" users' emotions based on their facial expression
- Built using Raspberry Pi, OpenCV, Tensorflow and Python

Sep 2019 **Circles.Hack 2019 Finalist**
- Virtual hackathon organized by local network operator
- *SaveLeh* provides in-depth expenditure analysis for the user, and offers recommendations based on user's spending habits.
- Built using Java and Android Studio

Sep 2019 **NUS Innoventure IdeaLaunch Champions**
- Annual engineering and entrepreneurship competition
- Developed and pitched a household water-saving system which also doubles as a shower rack

Skill Sets & Proficiency

Programming	Java	Proficient
	C#	Proficient
	Python	Proficient
	JavaScript	Proficient
	C	Intermediate
Artificial Intelligence / Machine Learning	OpenCV	Basic
	TensorFlow	Basic
	Spacy	Basic
Web	JavaScript, HTML, CSS	Proficient
	Flask	Intermediate
	ASP.Net	Intermediate
	React / Redux	Proficient
	ExpressJS	Proficient
	Loopback	Proficient
Testing	Selenium	Intermediate
	NUnit	Intermediate
	Junit	Intermediate
	Moq	Intermediate
Database	MYSQL	Proficient
	MongoDB	Proficient
	Redis	Intermediate
	PSQL	Proficient
Mobile	Android Studio (Java)	Intermediate
Deployment	Docker Containers	Proficient
	Azure DevOps	Proficient
	AWS EC2 / Cloudwatch	Intermediate
	Heroku	Intermediate
	GitHub Pages	Intermediate
Hardware Skills	Raspberry Pi	Intermediate
	Arduino	Intermediate

APPENDIX A

Degree: Bachelor of Computing (Honours) in Computer Science
Cumulative Average Point: 4.81 / 5.00

Category	Course Description	Grades
Computing Fundamentals	Programming Methodology	A
	Programming Methodology II	A-
Software Development	Software Engineering ^	A
	Independent Software Development Project #	CS
Algorithm and Theory	Data Structures and Algorithms	A
	Discrete Structures	A-
	Design and Analysis of Algorithms	CS (COVID)
Operating Systems	Computer Organization	A-
	Introduction to Operating Systems	A-
Network and Security	Introduction to Computer Networks	A
	Introduction to Information Security	A
Artificial Intelligence	Introduction to Artificial Intelligence	A
	Machine Learning	B+
Database Systems	Database Systems	B+
Distributed Systems	Parallel and Distributed Algorithms	A
Mathematics	Calculus for Computing	A-
	Linear Algebra I	A-
	Probability and Statistics	A
	Living with Mathematics	A
Electives	Product & Business Plan Competition *	CS
	Product & Business Development *	CS
	Start-up Case Study & Analysis	A
	Lean Startup: Market Validation	A-
	German 1	S
	Quantitative Reasoning	A
	Natural Heritage of Singapore	A
	General Biology	A-

NUS Grading Scale:

A+ & A (5.0); A- (4.5); B+ (4.0); B (3.5); B- (3.0); C+ (2.5); C (2.0); D+ (1.5); D (1.0); F (0)

S = Satisfactory; U = Unsatisfactory

CS = Completed Satisfactorily; CU = Completed Unsatisfactorily

EXE = Exempted; IC = Incomplete; IP = In Progress; W = Withdrawn

The **Independent Software Development Project (Orbital)** allows year 1 undergraduates to form a team of 2 and create any project during the summer break. It is an independent project and thus, students are required to do their own research and self-study. This allows students to gain an experience of doing a self-study project. Me and partner developed an android chemistry-based dating application. The mobile app uses android studio (Java) and various firebase cloud services. Users can host dating games and select potential suitors which they feel they have a strong connection with. This is done without the biases of physical appearances.

* The **Product & Business Plan Competition (Innoventure)** is an experiential module that provides students with the real-world opportunities to develop the skills to lead engineering innovation and entrepreneurship skills. This module is designed to shape future engineer-leaders with the necessary soft skills and business know-how to create value. I formed a team with members from civil engineering and chemical engineering to design a water-saving product, which doubles as a shower rack. This dual-purpose product which we pitched, won us champions in the first phase of the competition.

^ The **Software Engineering** module introduces the necessary conceptual and analytical tools for systematic and rigorous development of software systems. It covers four main areas of software development, namely object-oriented system analysis, object-oriented system modelling and design, implementation, and testing, with emphasis on system modelling and design and implementation of software modules that work cooperatively to fulfil the requirements of the system. Tools and techniques taught include Unified Modelling Language (UML), program specification, and testing methods. I was a teaching assistant for this module.