NG ZHILI

Mobile: +65 87170455

Email: ng.zhili@u.nus.edu

LinkedIn: www.linkedin.com/in/ngzhili

Online Portfolio: https://ngzhili.github.io/ngzhilicv/

PERSONAL STATEMENT

- I am Ng Zhili, a Mechanical Engineering + University Scholars Programme (USP) undergraduate from National University of Singapore (NUS) with 3 years of working experience.
- I am a highly driven and proactive individual who is willing to step out of my comfort zone to learn new skills and is adept at problem-solving. Being an engineer at heart, I seek to utilize my strong analytical and quantitative skills to solve complex tasks and problems in diverse cross-functional teams. I also developed a strong interest and passion in programming, artificial intelligence, robotics, innovation and entrepreneurship.
- Additionally, I have strong leadership qualities, great time-management and interpersonal skills. Since Junior College, I have held several leadership positions: Director of Elderly Beneficiary in Interact Club and Vice-Chairperson of College Freshmen Orientation Program. In NUS, I was also the Chief Orientation Group Leader for USP Freshmen Orientation Program and the Deputy Director of Sponsorships for NUS Entrepreneurship Society (NES). These experiences have trained me to multitask and handle challenges as well as enjoying the process of teamwork.

EDUCATION

National University of Singapore (NUS)   Aug 2019 – Present

- Year 2, Bachelor of Engineering (Hons) in Mechanical Engineering.
- Current Cumulative Average Point (CAP): 4.62/5.0 (First Class - Honors).
- Intended Specialization: Robotics.
- NUS InnoVenture Final Pitch 2020 - Best Pitch By Audience Choice Award.

NUS University Scholars Programme (USP)   Aug 2019 – Present

- Awarded NUS USP Scholarship: The Jixun & Serene Scholarship, top 2% in USP cohort.
- Representing USP Faculty for Dodgeball in the NUS Inter-College Games (ICG) 2021.
- Represented USP Faculty for Table Tennis in the NUS Inter-Faculty Games (IFG) 2019 and the NUS Inter-College Games (ICG) 2020.
- Mentor for USP Peer Mentor Program 2020.
- USP multidisciplinary academic programme imparts core intellectual, critical inquiry and problem-solving skills, admits only top 2.5% of total NUS undergraduate cohort.

Jurong Junior College (JJC)   Jan 2015 – Dec 2016

- GCE A-Levels: Subject Combination PCME, Graduated with university IGP (AAB/A).
- Bestowed EAGLES and College Outstanding Leadership Award in 2016.
- Awarded Edusave Scholarship and Good Character Award in 2016.
- Nominated for Lee Hsien Loong Outstanding All-Round Achievement Award in 2017.

WORK EXPERIENCE

Opporizon Global, Business Development and Research Intern   May 2020 – Jul 2020

- Head Intern Coordinator, Assistant to CEO/Founder.
- Supervised and coordinated tasks for 4 interns.
- Researched and sourced 50 global startup accelerators and eco-systems.
- Created content and sourced for 100 new global business opportunities (B2B and B2C).

- Redesigned company webpage layout by applying UI/UX practices to make it more appealing and accessible to potential clients and readers.
- Critically analyzed and compiled 100 quotations of custom-engineered turbomachinery and cryogenic heat transfer product data sets to an excel database for easier visualization and referencing.
- Proposed new business ideas in the form of pitch deck slides that covers the Business Model Canvas, Minimum Viable Product (MVP), competitor analysis, viable business models and revenue streams.

Kruger Engineering Pte Ltd, Assistant Engineer Intern   **Feb 2019 – May 2019**
- Applied fan engineering theory to quote over 2000 Mechanical Ventilation (MV) and Jet fans based on needs, specifications and budget requirements requested by clients.
- Conducted acoustic analysis of 200 MV fans by calculating acceptable sound tolerance levels to designate suitable sound attenuators in distinct ducting systems.
- Utilized CAD software, blueprint and isometric drawings to perform static pressure calculations for over 500 MV fans, Fan Coil Units and Air Handling Units' systems.
- Innovated new fan selection program methods using Microsoft Excel, improved overall efficiency and productivity of engineering sales department.

Singtel, SIM Card Promoter   **Nov 2018 – Jan 2019**
- Registered and distributed over 300 prepaid SIM cards to customers and maintained customer relations per company policies.
- Achieved the best salesperson of the month, maintained knowledge of current sales and promotions, policies regarding payment and exchanges practices.

NUS JSS Brothers and Sisters Programme (BnS), Tour Guide   **Nov 2018 – Jan 2019**
- Guided groups of up to 7 Japanese High School Students on tours around Singapore.
- Relayed information through narratives on 8 historical sites were well-received.
- Researched and studied topics about 5 tour locations to add to presentation scripts.

Singapore Armed Forces, ATGM Platoon Sergeant (BSC)   **Jan 2017 – Nov 2018**
- Rank: 2nd Sergeant (NS) in Brigade Support Company (BSC).
- Appointment: Anti-Tank Guided Missile (ATGM) Platoon Sergeant.
- Led and trained platoon of 12 soldiers to aid personal and professional development in areas of fitness, discipline and outfield missions.
- Fostered open and professional relationships with more than 100 stakeholders in company.
- Developed leadership and planning skills, handled company and platoon administrative tasks.

ADDITIONAL EXPERIENCE

Amazon Web Services (AWS) Build On, Singapore 2020 Hackathon   **July 2020 – Sep 2020**
- Finalist - Top 40 Teams (Institute Category).
- Case Summary: Design an Intelligent Bed Management System (iBMS) for Farrer Park Hospital to improve bed allocation for patients based on admission rules and priorities.

NUS InnoVenture Case Competition 2020   **Jan 2020 – May 2020**
- NUS InnoVenture Final Pitch 2020 - Best Pitch By Audience Choice Award.
- Case Summary: Provide solutions to the problems faced by Grab in their Personal Mobility Device (PMD) sharing service by addressing PMD safety issues while maintaining profitability for Grab.

EXTRACURRICULAR ACTIVITIES

NUS Entrepreneurship Society (NES), Deputy Director of Sponsorships   **Sep 2020 – Present**
- Sourced for sponsorships and managed relations with sponsors to provide financial support for NES events.
- Sourced for startup mentors and panellists to assist with NES events.
- Organized and sourced for renowned speakers for NES entrepreneurship webinars.
- Led and managed 6 associates to ensure that Key Performance Indicators (KPI) are met.
- Planning and developing NES Phone Application using Flutter Software.

NUS RoboMasters, Team LumiNUS Mechanical Engineer   **Sep 2020 – Present**
- Representing NUS in DJI International RoboMaster University Championship 2021.
- Designed and fabricated 3 improved designs for the Standard Robot Chassis and Heart using Solidworks.
- Analyzed robot structural integrity in terms of allowable stress, strain and deformation using Solidworks.
- Research focused on vehicle dynamics, rollover on inclined surfaces, wheel skiing during turning and sensitivity analysis of overturning.

NUS Bumblebee Autonomous Systems, Mechanical Team Member   **Sep 2019 – Sep 2020**
- Represented NUS in the Singapore AUV Challenge 2020 (SAUVC 2020).
- Designed and fabricated Hornet 5.0 Autonomous Underwater Vehicle (AUV) actuator arm, ball dropper and kill-switch using SolidWorks.
- Carried out pool testing and prototyping of Hornet 5.0 AUV mechanical systems.
- Innovated new methods to waterproof DC motors and mechanism of actuator arm.

NUS University Scholars Club (USC), Ursaia House Committee (EXCO)   **Sep 2019 – Oct 2020**
- 1 out of 4 students nominated as Ursaia House Committee by USP residents.
- Led and organized monthly House events for 120 year 1 to year 5 undergraduates.
- Maintained interpersonal relationships with 120 different stakeholders in the House.
- Appointed Head of Logistics of Ursaia House.
- Overall lead coordinator for USP houses for house shirt orders; liaised with shirt suppliers for best quote price.

NUS USP Freshmen Orientation Program, Chief Orientation Group Leader (COGL)   **Sep 2019 – Oct 2020**
- Empowered 30 orientation group leaders (OGL) to lead and integrate 41 freshmen into USP faculty.
- Planned and executed OGL training and enforced standard operating procedures.
- Managed logistics, manpower, administrative matters to bonding games.
- Formulated and executed house bonding games for 41 freshmen and 8 exchange students.
- Packed and distributed welcome packages for the freshmen.

JJC 34th Interact Club, Director of Elderly Beneficiary (EXCO)   **Jan 2015 – Jul 2016**
- Conferred the Interact Award of Merit 2016.
- Planned, liaised projects, managed 15 beneficiary members and logistical resources for weekly visits to elderly daycare centres and external organizations over 2 years.
- Chairperson for Bollywood Veggie Farm Outing with Elderly from SilverAce.
- Chairperson for Inter-generational Learning Program: Smartphone Explorer (Food Trail).
- Planner for SG50 Giving Awareness Drive within college.
- Orientation Team Facilitator for J1 Community Service Leaders Camp.

JJC Freshmen Orientation Program, Family Head (Vice-Chairperson)   Nov 2015 – Jan 2016
- Enthusiastically addressed 160 freshmen in orientation family, handled administrative and interpersonal matters regarding orientation family.
- Supervised 10 Orientation Groups and empowered 20 Orientation Group Leaders (OGLs) to integrate 160 freshmen into college's culture and community.
- Handled administrative and interpersonal matters within orientation family.
- Resolved conflicts between OGLs and strategically planned OGL pairings so that the strengths and weaknesses of each pair of OGLs are complemented for higher success in leading an orientation group.

JJC Cambodia Overseas Community Involvement Project (OCIP), Teaching Committee   Sep 2015 – Nov 2015
- Planned and conducted English, life skills and hygiene lessons to 25 children.
- Built a kindergarten for children to attend and supervised food & book donation drive.
- Gained a deeper appreciation about Cambodian history, culture, language.

SKILLSETS & PROFICIENCIES

Programming Skills	Python	Proficient
	Python Telegram Bots	Intermediate
	Excel Visual Basic, VBA	Intermediate
	Python Machine Learning	Basic
	Google Cloud Platform, Data Science	Basic
	OpenCV	Basic
	MatLab	Basic
	HTML	Basic
	CSS	Basic
Technical Skills	Microsoft Word	Proficient
	Microsoft PowerPoint	Proficient
	Microsoft Excel	Proficient
	SolidWorks	Intermediate
	Autodesk Fusion 360	Intermediate
	Solid Edge 2020	Basic
	Tableau Software	Basic
	Arduino	Basic
	Accounting	Basic
Non-Technical Skills	Leadership	Proficient
	Interpersonal Skills	Proficient
	Project Management	Intermediate
	Lifesaving 1,2,3 Awards	Proficient
	Kayaking 1,2 Star Awards	Proficient
	National Survival Swimming Award	Proficient

LANGUAGE PROFICIENCIES

Spoken	English	Fluent
	Mandarin	Fluent

| **Written** | English | Competent |
| | Mandarin | Intermediate |

CERTIFICATIONS

Build On, Singapore 2020 Hackathon	Amazon Web Services (AWS)	2020
Building Chatbots In Python	DataCamp	2020
Google Cloud Essentials	QwikLabs	2020
Intro to ML: Image Processing	QwikLabs	2020
Data Science on Google Cloud: Machine Learning	QwikLabs	2020
BigQuery for Machine Learning	QwikLabs	2020
Accounting Fundamentals	Corporate Finance Institute (CFI)	2019
Excel Crash Course	Corporate Finance Institute (CFI)	2019