

## Muhammad Afiq bin Muhamad Yusof

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### Personal Statement

I am Afiq, a Mechanical Engineering student in my penultimate year in the National University of Singapore. I am a budding engineer who constantly seeks to improve during my time as a student. I believe that engineering and technology has shaped our very world and society to be what it is today and I am excited to think that I could be a part of that in the near future. It is my ambition to be able to work on a revolutionary product, technology or project that could change the world, similar to how Artificial Intelligence (AI) and Internet of Things (IoT) is causing the fourth industrial revolution. Moving away from the technical side of things, I have tried my hand in creating a social nonprofit organization that aims to reduce recidivism rates among drug offenders in Singapore.

I am currently seeking an internship in Silicon Valley to hone my more technical skills as well as to learn about the start-up culture there. Being a mechanical engineer, I would be very keen to work on hardware related projects in fields such as robotics and mechatronics. That being said, I am also keen to explore the software side of things which I hold a deep interest in as well. I have self-taught myself almost all my programming skills due to my interest in the subject matter. The most important takeaway that I hope to achieve from this program is the skills and knowledge that I would acquire by the end of it.

### Internship Objectives

During the course of my internship, I hope to be trusted with a variety of responsibilities and be able to work on meaningful and challenging problems for my company. I wish to contribute as much as I can in the technical as well as business aspects of my company. One of my main goals is to add value to the company in meaningful and tangible ways. This would signal to me that I have made good use of my time at the internship. I also want to learn and experience what it takes for start ups to scale and be successful so that I can apply it to my own endeavors in the future.

### Relevant Experiences

I am currently working on a product design and development project in my university. For this project, I am leading a group of 4 to design a wheel locking mechanism for an external company. We are tasked with the conceptualization, design, prototyping, testing and fabrication of the product. At the time of writing this, our group has already come up with 4 unique prototypes and have achieved deliverables set by the company. I mainly used Solidworks for Computer Aided Designs (CAD) and basic simulations during this project. I also performed basic 3D printing for prototyping.

My previous internship was at a biotech company, Illumina Inc. As a product support intern, I was tasked with tracking the key performance indicator (KPI) for the Asia Pacific Region and recommending improvements to the workflow. I also had to exercise excellent communication skills and work with scientists and engineers to streamline product information for less technical staff members to understand. While I was there, I took the initiative to ask for a more technical project and I was tasked to write a Python script. The Python script would be used to create and update a database daily which would be used in product analytics and data visualization. This was an independent project and I learned all the required skills myself and managed to complete the whole project myself when it was estimated that I would have ended my internship without completing it.

### How I Can Contribute

Apart from the technical skills mentioned in this resume, I have a plethora of useful and transferrable skills such as critical thinking and problem solving that would make me an asset for many companies. I have a goal driven and proactive attitude that will be comfortable in a fast-paced environment. I am also a very fast learner and can perform tasks independently such that I can contribute back to the company with minimal time spent on training. Lastly, I consider myself to be adaptable and will be able to work outside my comfort zone in different circumstances without issue

## Education & Projects

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Aug 2017 - Present	<b>National University of Singapore</b> Bachelor of Engineering (Honours) in Mechanical Engineering (Course details in Appendix A)	Singapore
Jan 2013 - Dec 2014	<b>Meridian Junior College</b> <ul style="list-style-type: none"><li>Singapore-Cambridge General Certificate of Education Advanced Level</li></ul>	Singapore
Aug 2019 - Present	<b>Design Project</b> Royal Chemical & Tools Asia Pacific Pte Ltd <ul style="list-style-type: none"><li>Designed an original glass grinding wheel locking mechanism for ease of installation and removal</li><li>Oversaw every stage of project from conceptualization, prototyping and testing to fabrication of final product</li><li>Led a team of four to achieve deliverables set by the company</li><li>Used Solidworks to create Computer Aided Designs (CAD) and for basic simulations</li></ul>	Singapore

## Work Experience

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May 2018 - Present	<b>UNCAGE</b> <i>Vice President (External), Co-Founder</i> <ul style="list-style-type: none"><li>Co-founded a non-profit organization dedicated to reducing drug recidivism</li><li>Pitched idea to various established organizations in the field for approval and partnership</li><li>Received approval to conduct first pilot test with Singapore Prisons Services (SPS)</li></ul>	Singapore
May 2019 - Aug 2019	<b>Illumina Inc.</b> <i>Product Support Intern</i> <ul style="list-style-type: none"><li>Created a web crawling Python script to run daily and create or update a database every run; database used for product analytics</li><li>Independently worked on the Python project to completion, self-learning all skills required</li><li>Monitored cases in Asia Pacific region and recommended improvements to workflow processes</li><li>Worked with scientists and engineers to streamline technical information for less technical staff</li></ul>	Singapore
May 2015 – Mar 2017	<b>Singapore Police Force (National Service)</b> <i>Neighborhood Police Center Officer</i> <ul style="list-style-type: none"><li>Responded to calls and emergencies throughout neighborhood</li><li>Performed various duties that require excellent communication and conflict resolution skills</li><li>Took initiative to perform duties beyond job scope and was eventually trusted to work independently</li><li>Assisted in planning a division wide event for 500 participants</li></ul>	Singapore

## Scholastic Achievements/Extracurricular Activities

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Aug 2018 – Dec 2018	<b>Dean's List</b> Top 5% of cohort	Singapore
Sep 2018 – Sep 2019	<b>Society of Mechanical Engineering</b> <i>Vice President (Internal)</i>	Singapore

- Directly oversaw two committees which planned welfare and events for students
- Assisted with general running of society, facilitating meetings, editing constitution and various admin duties
- Held appointment of Academics Director and liaised with other clubs, societies and staff to discuss collaboration opportunities
- Planned a total of 12 events while holding the position

Jan 2018 - May 2018

### **Freshman Orientation Camp**

Singapore

*Vice Project Director/Chief Safety Officer*

- Planned and organized freshman orientation camp for 200 participants
- Oversaw various aspects including programs, publicity, marketing and logistics
- Proposed a thorough safety plan for the entire camp and executed it without incident

## **Skill Sets & Proficiency**

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<b>Web</b>	HTML, CSS	Basic
<b>Programming</b>	Java C Python	Basic Intermediate Intermediate
<b>Scripting</b>	JavaScript	Basic
<b>Engineering Related</b>	Solidworks Ansys Arduino Circuit design	Proficient Intermediate Intermediate Basic
<b>Non-technical Skills</b>	Project Management	Intermediate
<b>Office Productivity</b>	Microsoft Word, PowerPoint Microsoft Excel	Proficient Intermediate

## **Language Proficiency**

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<b>Spoken</b>	English – fluent; Malay – average
<b>Written</b>	English – competent; Malay – competent

## **Additional Information**

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Other activities/interests	Enjoys watching football Loves most outdoor activities such as rock climbing, kayaking and deep-water diving
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**Degree:** Bachelor of Engineering (Honours) in Mechanical Engineering  
**Cumulative Average Point:** 4.26 / 5.00 (Second Upper Class Honours)

Groups	Level	Course Description	Grades
Basic Engineering (Mechanical and Electrical)	Year 1/Semester 1	Engineering Principles and Practice 1	A-
	Year 1/Semester 2	Engineering Principles and Practice 2	B+
	Year 1/Semester 1	Physics IE	B+
Manufacturing and Material Selection	Year 2/Semester 1	Manufacturing Processes	A
	Year 2/Semester 2	Engineering Innovation and Modelling	B+
	Year 3/Semester 1	Design for Manufacturing and Assembly	In-progress
Engineering Mechanics	Year 2/Semester 1	Principles of Mechanical Engineering Materials	A
	Year 2/Semester 1	Strength of Materials	A
	Year 2/Semester 2	Mechanics of Machines	B+
Fluid Mechanics	Year 2/Semester 1	Fluid Mechanics 1	A
	Year 2/Semester 2	Intermediate Fluid Mechanics	B+
	Year 2/Semester 2	Aerodynamics	B+
Thermodynamics	Year 2/Semester 2	Engineering Thermodynamics	B+
Others	Year 2/Semester 2	Feedback and Control Systems	B+
	Year 3/Semester 1	Mechanical Systems Design	In-progress
	Year 3/Semester 1	Robot Mechanics and Control	In-progress
Programming	Year 1/Semester 2	Programming Methodology	B+

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**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