

# Ze Jie Kong

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## INTERNSHIP OBJECTIVE

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Seeking to apply for a Professional Internship (**from January to May 2022**) in your esteemed organization. A self-driven Mechanical Engineering student who possesses basic understanding of Mechatronics systems and knowledge to design these systems for real world applications. Passionate in the field of robotics software development, specifically the use of ROS in developing a physical robot.

## EDUCATION

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**Nanyang Technological University, Singapore**

Aug 2019 – May 2023(Expected)

**Bachelor of Engineering (Mechanical Engineering)**

- Robotics and Mechatronics Stream
- Honours (Highest Distinction) / CGPA: 4.66/5.00 (current)
- Relevant Coursework: Introduction to Computational Thinking (Python), Mechatronics System Interfacing, Introduction to Mechatronic System Design
- Online Modules: Using Python to Access Web Data, Applied Social Network Analysis in Python

**National University of Singapore**

Aug 2021 - Present

- Partial exchange programme for 1 semester.

## SKILLS

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Languages: Proficient in English, Chinese and Malay; basic - Korean

Digital Skills: ROS (currently acquiring), Python, C++, Arduino, Machine Learning, Solidworks, HTML, CSS, JavaScript, Linux, Microsoft Office

## ACADEMIC PROJECT

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**Nanyang Technological University, Singapore**

**Engineering Innovation and Design (E.I.D)**

Jan 2021 – May 2021

Project Title: Deployable Bicycle Shelter

- Objective: Fabricate a bicycle mounted shelter to shield food delivery riders from unfavourable weathers
- Solved several issues pertaining to the design and material choice which ensured usability of prototype.
- Learned to use power tools from team members to construct the prototype in 4 months' time.
- Procured positive feedback from group mentor regarding the prototype and scored A.

**Mechatronics System Design**

Jan 2021 – May 2021

Project Title: Automatic Shirt Folder

- Objective: Build a mechatronics system capable of aiding people with visual impairments in folding shirts.
- Led a team of 7 members in developing automatic shirt folder within 2 weeks.
- Liaised with lab technician to request for electronic components and technical advice, which greatly improved quality of prototype.
- Showcased a functional prototype to judges on judging day.

## **Intro to Data Science and Artificial Intelligence**

Aug 2020 – Nov 2020

Project Title: Aviation Accident Prediction using Machine Learning

- Objective: Implement Machine Learning techniques on a given aviation dataset to identify aviation accident patterns.
- Collaborated with 3 team members to create the Machine Learning model based on proposed problem.
- Provided in-depth explanation on adopted Machine-Learning technique (Random Forest Classifier) during group presentation.
- Achieved classification accuracy of 0.88 for test dataset and obtained A+.

## **WORK EXPERIENCE**

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### **Rack Assembly Worker, SJ MANUFACTURING Pte Ltd**

Jun 2021 – Jul 2021

- Underwent a 2-day professional workplace safety course at Eversafe Academy to work on-site. Assimilated various workplace safety procedures and passed the course.
- Assembled components of data server racks according to client's order with minimum supervision.
- Operated power tools, such as drill press machine and screw gun to carry out assembly tasks efficiently.

### **NTU Student Service Centre Helper**

Jun 2020 – Aug 2020

- Carried out logistics duties at Student Service Centre for issuance of graduate certificates, mainly quality checking of certificates.
- Fulfilled other ad-hoc tasks assigned, such as temperature taking and crowd control which helped ensure smooth flow of certificate collection.

## **CO-CURRICULAR ACTIVITIES**

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### **F1Tenth Autonomous Racing Car Member**

Aug 2021 – Present

- Equip necessary skills to build racing car by undertaking a comprehensive online course. (Topics included: Intro to ROS, Mapping and Localization, Control, etc)

### **American Society of Mechanical Engineers (ASME) Logistics Officer**

Aug 2020 – May 2021

- Provided logistics assistance, such as bookings and set-up of venue., for 2 main events organised by ASME.
- Volunteered as a student helper to facilitate Python workshop and Solid Edge workshop.
- Picked up valuable problem-solving skills and people handling skills after working with 3 different project officers.

### **MSA NIGHT PROJECT**

Apr 2020 – Oct 2020

#### **Publicity & Publications Officer**

- Designed a poster to promote the event to Malaysian Student's Association (MSA) members in NTU.
- Shot a video along with 3 other officers with the purpose of portraying the culture of MSA in NTU.
- Completed production of video using video editing tools before deadline and received great responses from members.

## **HOBBIES & INTERESTS**

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Playing musical instruments (Piano), Sports (Badminton, Basketball), Personal Coding Projects (Web scrapping, Web Automation, Web Development)



# NANYANG TECHNOLOGICAL UNIVERSITY

## EXAMINATION RESULTS

NAME OF STUDENT : KONG ZE JIE  
PROGRAMME : ENGINEERING (MECHANICAL ENGINEERING)

MATRIC NO : U1920892L  
DATE OF BIRTH : 5 DECEMBER 1999

### 2019-2020 SEMESTER 1

Code	Course	AU	Grade	Grade Point
CS8888	ARTIFICIAL INTELLIGENCE & THE LAW	3.0	B+	4.00
EE8086	ASTRONOMY - STARS, GALAXIES & COSMOLOGY	3.0	S	
FE1073	AN INTRODUCTION TO ENGINEERING & PRACTICES	1.0	A-	4.50
* GC0001	SUSTAINABILITY: SEEING THROUGH THE HAZE	1.0	PASS	
HW0188	ENGINEERING COMMUNICATION I	2.0	B+	4.00
MA2003	INTRODUCTION TO THERMO-FLUIDS	3.0	A-	4.50
MH1810	MATHEMATICS 1	3.0	B+	4.00
PH1011	PHYSICS	3.0	B+	4.00
No. of Academic Units Earned : 19				
Cumulative Grade Point Average : 4.13				

### 2019-2020 SEMESTER 2

Code	Course	AU	Grade	Grade Point
MA1001	DYNAMICS	3.0	A+	5.00
MA1002	FUNDAMENTAL ENGINEERING MATERIALS	3.0	A+	5.00
MA1008	INTRODUCTION TO COMPUTATIONAL THINKING	3.0	A	5.00
MA2001	MECHANICS OF MATERIALS	3.0	A+	5.00
MA8105	ENGINEERING MANAGEMENT ANALYSIS	3.0	A	5.00
MH1811	MATHEMATICS 2	3.0	A+	5.00
No. of Academic Units Earned : 18				
Cumulative Grade Point Average : 4.61				

### 2020-2021 SEMESTER 1

Code	Course	AU	Grade	Grade Point
* HY0001	ETHICS & MORAL REASONING	1.0	PASS	
MA0218	INTRODUCTION TO DATA SCIENCE & ARTIFICIAL INTELLIGENCE	3.0	A+	5.00
MA2004	MANUFACTURING PROCESSES	3.0	A+	5.00
MA2006	ENGINEERING MATHEMATICS	3.0	A-	4.50
MA2009	INTRODUCTION TO ELECTRICAL CIRCUITS & ELECTRONIC DEVICES	3.0	A+	5.00
MA2011	MECHATRONICS SYSTEM INTERFACING	3.0	A	5.00
MA2071	LABORATORY EXPERIMENTS (ME)	1.0	A-	4.50
* ML0003	KICKSTART YOUR CAREER SUCCESS	1.0	PASS	
MOOC1	PLANET EARTH...AND YOU!	3.0	TC	
No. of Academic Units Earned : 21				
Cumulative Grade Point Average : 4.69				

### 2020-2021 SEMESTER 2

Code	Course	AU	Grade	Grade Point
LK9001	KOREAN LANGUAGE LEVEL 1	3.0	S	
MA2002	THEORY OF MECHANISM	3.0	A+	5.00
MA2005	ENGINEERING GRAPHICS	3.0	A-	4.50
MA2012	INTRODUCTION TO MECHATRONICS SYSTEMS DESIGN	3.0	B	3.50
MA2079	ENGINEERING INNOVATION & DESIGN	2.0	A	5.00
MA3002	SOLID MECHANICS & VIBRATION	3.0	A+	5.00
MA3005	CONTROL THEORY	3.0	A-	4.50
MOOC2	INTRODUCTION TO CLIMATE CHANGE AND HEALTH	1.0	TC	
MOOC3	GLOBAL ARCTIC	1.0	TC	
MOOC4	THE SCIENCE OF WELL-BEING	1.0	TC	
MOOC5	APPLIED SOCIAL NETWORK ANALYSIS IN PYTHON	1.0	TC	
MOOC6	OUR ENERGY FUTURE	2.0	TC	
No. of Academic Units Earned : 26				
Cumulative Grade Point Average : 4.66				

TOTAL ACADEMIC UNITS EARNED : 84

XXX END OF RESULTS XXX

A COMPLETE TRANSCRIPT WILL BE ISSUED UPON CONFERMENT OF DEGREE.

Print date : 27 AUGUST 2021

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### GRADING SYSTEM

#### GRADINGS

The grade points corresponding to the letter grades are as follows:

Letter-Grade		Grade Point
A+	-	5.00
A	-	5.00
A-	-	4.50
B+	-	4.00
B	-	3.50
B-	-	3.00
C+	-	2.50
C	-	2.00
D+	-	1.50
D	-	1.00
F	-	0.00

The University's medium of instruction is English unless otherwise specified.

#### NOTATIONS

*	-	Course with Pass/Fail grading only
#	-	Repeated attempt
AT	-	By attendance only
IP	-	In Progress
LOA	-	Absent (with valid reasons)
W	-	Withdrawal
EX	-	Exempted from course
TC	-	Transfer credits
S	-	Satisfactory
U	-	Unsatisfactory
+	-	Course conducted in Chinese

#### For Undergraduate Programmes only

**Satisfactory/Unsatisfactory (S/U) Option** The S/U grading option allows a student to take a course on an ungraded basis (i.e. no letter grade, e.g. A, B, etc.). For a course opted to be graded on S/U basis, the student will earn academic units for the course only if he attains a 'Satisfactory' (S) grade.