## **CHUA TING KAI**

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#### **EDUCATION**

## **National University of Singapore (NUS)**

Aug 2020 - Present

- Graduate Diploma in Systems Analysis (Expected graduation date: July 2021)
- Programming Language: C; C#; Python; Java; JavaScript; HTML/CSS; SQL
- Familiar Technologies: MongoDB; Express; React; Node.js (MERN stack); ASP.NET Core; Spring; MySQL; SQL Server
- Relevant coursework: Designing digital solutions with Unified Modelling Language (UML); Developing Full-Stack web solutions; Developing Mobile solutions; Data Analysis and Design

## **National University of Singapore (NUS)**

Aug 2015 - June 2019

- Bachelor of Engineering (Electrical Engineering), Honours
- Cumulative Average Point: 4.67/5.00 (Highest Distinction)
- Relevant coursework completed include Circuit analysis; Programming in C, Python, Matlab, Verilog and Assembly language; Signals and Systems analysis; Engineering Electromagnetism.

## Hanyang University (Korea), Winter School Exchange Program

Dec 2018 - Jan 2019

Learned about Project Management and Engineering Ethics.

## Tokyo Institute of Technology (Japan), Student Exchange Program

Apr 2018 – Aug 2018

- Completed Masters level modules on Advanced Electromagnetism, Robust Control Systems and Bipolar Transistors and Compound Semiconductor.
- Gained insights into Japanese culture by participating in activities such as regular lab meetings in the university.

#### IT/LANGUAGE SKILLS

- Certificate in CS50x Introduction to Computer Science from Harvard University, edX
- Certificate in MERN eCommerce From Scratch for Udemy
- Certificate in Algorithms Specialisation from Stamford University, Coursera
- Certificate in Responsive Web Design Certification with HTML/CSS from freecodecamp.org
- Certificate in JavaScript Algorithms and Data Structures Certification from freecodecamp.org
- Proficient in Microsoft Office, LtSpice, Altium, Matlab, HFSS and CST.
- Fluent in English and Mandarin (both spoken and written).

## **WORK EXPERIENCE**

## **Envision Digital, Software Engineer Intern**

March 2021 - Present

- Build backend API using Java, Spring Boot, Spring Batch, JPA, JDBC, MyBatis and MySQL
- Performed unit test to ensure the quality and reliability of code
- CI/CD, deployed microservices to the cloud using Docker
- Familiar with Agile methodology and tools such as Jira and Confluence

## Schneider Electric, Sales Engineer (Power Systems)

**April 2020 - July 2020** 

- Promoted Medium Voltage Solutions (Oil/Dry-type Transformer, Air/Gas insulated Switchgear and Microgrid solutions) and highlight our value proposition to potential customers in Marine and Oil & Gas segment.
- Planned Marketing Activities, Innovation Hub tours, Annual Marketing and Sales Plan (AMSP) and Annual Marketing Report (AMR).
- Found sales leads and support marketing activities.
- Led the tendering and project execution team to win projects.
- Involved in customer site visits and project management.

## Schneider Electric, Marketing Executive (Power Systems)

June 2019 - March 2020

 Trained in promoting Medium Voltage Solutions (Oil/Dry-type Transformer, Air/Gas insulated Switchgear and Microgrid solutions) portfolio.

- Conducted weekly Innovation Hub tours for regional visitors and dignitaries to demonstrate Ecostruxure solutions for Utilities, Transportation and Oil & Gas segment.
- Supported sales for project bidding and highlight our value proposition positioning Ecostruxure as the premium differentiator over competitors.
- Participated in the Annual Marketing and Sale Plan (AMSP) and Annual Marketing Report (AMR) to formulate goto-market strategies and determine order targets.
- Involved in customer site visits and project management.
- Planned the process for company events (SE Day) with more than 500 participants.

## Rolls Royce, Intern June 2017 – Dec 2017

- Designed and fabricated a PCB for a power distribution controller using Altium software.
- Simulated different circuit components with LtSpice before implementation on the PCB.
- Tested the resulting PCB circuit and resolved all possible errors.
- Successfully implemented ADC and PWM using Matlab on the controller with a DSP chip.

## **SC Corporal, Singapore Police Force**

Feb 2013 - Feb 2015

- Managed up to 30 job applications daily to ensure operational efficiency for recruitment team.
- Conducted weekly bond signing and briefing sessions for successful applicants to sign their contract.
- Planed SPF career fairs to promote Police Officer as a good career choice.

#### **ACHIEVEMENTS**

- Awarded the Tokyo Kogyo Daigaku Kikin (Tokyo Institute of Technology Scholarship) during the duration of the student exchange in 2018.
- Awarded the NUS Dean's List recognition during Academic Year 2016/2017 Semester 2 for being in the top 5% of the Electrical Engineering cohort in terms of academic performance.
- Awarded the MOE Edusave Scholarship in 2007, 2008, 2009, 2010, 2011 and 2012 for being in the top 5% of the cohort.

## **ACADEMIC PROJECTS**

## **CS50x Web Track Final Project**

**April 2020 – Aug 2020** 

- Designed and build a blogging website, CS50Blog using the Django Python Framework, HTML/CSS with Bootstrap and JavaScript.
- Successfully deployed the application on Heroku and hosted static files on AWS S3.
- Awarded the Verified Certificate of Achievement by Harvard University and edX for the successful project.

# Undergraduate Researcher, Department of Electrical and Computer Engineering, National University of Singapore Aug 2018 – May 2019

- Designed a Reflectarray Antenna at 5.8GHz for wireless power distribution resulting in a final year project thesis and poster.
- Successfully designed and simulated a working prototype with Matlab, CST and AutoCAD.
- Successfully fabricated the prototype for testing.
- Successfully published the technical paper on IEEE 2019 International Conference on Electromagnetics in Advanced Applications (ICEAA). DOI: 10.1109/ICEAA.2019.8879349

## Undergraduate Researcher, Department of Electrical and Computer Engineering, National University of Singapore Jan 2017 – Oct 2017

- Researched on the basis of SAR systems and antenna design.
- Investigated on the impact of antenna configurations on SAR performance.
- Successfully designed, fabricated and tested a 4x4 patch antenna array at 8.4GHz for SAR systems with HFSS.

## **CO-CURRICULAR ACTIVITIES**

## **NUS Comics and Animation Club**

Jan 2016 - Aug 2019

Involved in club fund raising activities.