Yeow Qi Jie
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Education

Nanyang Technological University (NTU)	**August 2015 –**
Bachelor of Science in Chemistry and Biological Chemistry (CBC)	**June 2019**

Honours (Distinction): Cumulative Grade Point Average (CGPA): 4.19/5.00

Academic Projects

Final Year Project Research Student	**December 2018–**
Exploring Friedel-Crafts Acylation for the Synthesis of Keto-Corannulenes	**April 2019**

- Research on the aromatic extension of corannulene, a curved polyaromatic hydrocarbon (PAH).
- Planned and synthesized keto-corannulenes and their derivatives.
- Characterized PAHs using NMR and MALDI-TOF

Computational Chemistry Project	**July 2018 –**
Theoretical Energy Calculation of HeH^+	**November 2018**

- Coded a Python script to calculate the energy of HeH^+ using Hartree-Fock methods using Scipy libraries

Making and Tinkering Project	**May 2017 –**
Thermoelectric Multipurpose Chiller	**August 2017**

- Developed a Thermoelectric Multipurpose Chiller controlled by a Raspberry Pi
- Coded a GUI in Python for temperature control using Tkinter and GPIO libraries
- Awarded with Best Craftsmanship Award

Summer Research Programme Research Student	**May 2016 –**
Applications of CP- and PCP-Pd Complexes in the Synthesis of Heteroatom-substituted Tertiary Phosphines	**August 2016**

- Research on 2 separate ligands (CP and PCP) in their applications for asymmetric hydrophosphination
- Screened conditions and substrates
- Performed low temperature and air-sensitive reactions using Schlenk line techniques.

Work Experience

Research Assistant	**November 2020**
National Institute of Education	**– Present**

- Fabricated and experimented with Dye-Sensitized Solar Cells (DSSC) for various applications.
- Synthesized and purified cobalt complexes for their use as electrolytes within the solar cells
- Designed and fabricated novel DSSC design for image recognition

Project Officer	**October 2019 –**
School of Physical and Mathematical Sciences (SPMS), NTU	**July 2020**

- Printed 3D nanostructures via meniscus confined electroplating and used SEM to identify them
- Developed data analysis suite using Python and Matplotlib
- Designed and fabricated FDM 3D printed parts for experiments

Teaching Labs Teaching Assistant	**January 2019 –**
School of Physical and Mathematical Sciences (SPMS), NTU	**May 2019**

- Part-time teaching assistant of chemistry laboratory courses for freshmen students.
- Taught 70 Chemistry freshmen students correct laboratory techniques by providing clarifications and guidelines on laboratory procedures.
- Enforced safety rules while assisting in chemistry experiments to ensure safe laboratory practice.
- Mastered effective communication and delivered clear instruction to students; enhanced understanding of laboratory procedures and troubleshooting wrong procedures.

Making and Tinkering Labs Teaching Assistant **May 2019 –**
School of Physical and Mathematical Sciences (SPMS), NTU **August 2019**

- Teaching assistant of courses for students.
- Enforced safety rules while assisting in technical projects to ensure safe laboratory practice.
- Advised students on technical aspects of their projects.
- Maintained 3D printers

Community Service

Officer **January 2010 –**
The Boys' Brigade in Singapore **Present**

- In charge of administration and finances of Boys' Brigade in 2 separate schools
- Planned and executed events for 100+ participants
- Planned and conducted training camps for secondary school boys.

Skills

Language Skills: English (Written and Conversational), Chinese (Conversational)
IT Skills: Microsoft Office, ChemDraw, Python, Solidworks,
Hardware Skills: Arduino and Raspberry Pi in varying applications