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| Chin Min Wei | | | | | | | | | | | | | | | |
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**EDUCATION**

**Singapore Polytechnic (SP) Apr 2019- Apr 2022**

Diploma in Bioengineering

* Further Mathematics (Elective) **Apr 2020 – Aug 2020**

**Nan Hua High School (NHHS) Jan 2015 – Dec 2018**

Triple Science, Elective History

**IT Skills**: AutoCAD, Autodesk Inventor, Babel.js, C++, CSS3, ESLint, HTML5, ImageJ, JavaScript, KNIME workflow, LabVIEW, Microsoft Office, Minitab, Node.js, Prettier, Python, ReactJS, Webpack

**Interests**: Web Development, Data Analysis, Machine Learning

**PROFESSIONAL EXPERIENCE**

**DSO National Laboratories, Research Assistant Jul 2022 – Dec 2022**

Defence Medical & Environment Research Institute (DMERI) - Combat Protection and Performance (CPP)

* Operate various equipment and conduct human trials
* Extensive data collection and data processing for individual subject reports
* Establishing and utilizing database for storage and processing of results
* Utilizing R to facilitate data analysis and readability of raw results

**Singapore-MIT Alliance for Research and Technology (SMART), R&D Intern Sept 2021–Feb 2022**

Disruptive and Sustainable Technologies for Agricultural Precision (DiSTAP)

* Utilizing carbon nanotube sensors to determine and analyze how the metabolic activities change or how external environment affect activities within plants (e.g. salicylic acid, heavy metal ions present in soil and carbon nanotubes)
* Made carbon nanotube sensors, which are functionalized by its attached polymer group, using ultrasonication and ultracentrifugation. Using Raman microscope, UV-Vis and PLE machine to determine the characteristics of nanosensors
* Designed a system using Raspberry Pi module for a portable near-infrared light detector

**PROJECT EXPERIENCE**

**SP, Biomedical Instrumentation Feb 2021**

* Designed a LabVIEW application program with GUI for Photoplethysmography Data Acquisition and Analysis. Using an infrared photo-coupler, blood volume in vessel is reflected as a pulse graph

**SP, Design and Build Medical Device Dec 2020 - Feb 2021**

* Designed a motorized easel for mouth artists using AutoCAD, such that they require minimum intervention from their caretaker or helper

**SP, Statistics and Analytics for Engineers Aug 2021**

* Developed a model to predict the behavior of customers by all relevant customer data, to project customer churn and how to retain them

**SP, Laboratory Skills and Techniques Dec 2020**

* Researched on Corynebacterium diphtheriae as a disease-causing bacterium, regarding its gram staining results, their source and how to isolate this specific bacterium, and the current diagnostic methods and treatment strategies for the diseases caused by this bacterium

**SP, Computer Programming Feb 2020**

* Programmed a simple desktop game using C++

**PERSONAL PROJECTS**

* Responsive HTML portfolio, for both mobile and computer use
* Color contrast checker for multiple colors, according to standards of WCAG

**CO-CURRICULAR ACTIVITIES**

**SP, Canoe Sprint (SPCT)**

***Captain* Feb 2021 – Feb 2022**

* Liaised with Student Development Officers and coach to plan training
* Adapted training to be conducted on online platforms in view of COVID-19 situation
* Planned and executed events e.g., Annual General Meeting, CCA carnival and EXCO meetings
* Guided and mentored juniors
* Conducted reviews within the EXCO after events to pinpoint areas of improvement
* Collaborated with 3 other CCAs to execute a beach clean-up at Seletar Island

***Vice Quartermaster* Feb 2020 – Feb 2021**

* Took care of equipment e.g., boats, paddles, and life jackets.
* Maintained shed cleanliness
* Initiated monthly boat maintenance
* Worked together with other committee members to discuss ideas and events

**NHHS, Netball (NHNB)**

***Head of Discipline* Feb 2018 – Nov 2018**

* Ensured team discipline, especially during competition
* Planned and executed a 2 Day 1 Night camp for graduating seniors

**NHHS, Student Council (NHSC)**

***Student Councilor* Apr 2016 – Nov 2018**

* Organized and executed events e.g., Teacher’s Day, Graduation Ceremony, Camp Vigor, Valentine’s Day
* Led my own team in 2017 and 2018 as the assistant-in-charge and overall-in-charge for the preparation of handmade gifts for the teachers
* Planned and facilitate camp for juniors