

# Tan Jia Yi, Andrea

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## About Me

A Year 3 NUS student with a major in Chemistry and a minor in both Forensic Science and Interactive Media Development. Interested in the consumer goods industry and hopes to explore the area of research and development. Detail-oriented, resilient, and eager to learn.

## Education

### BACHELOR OF SCIENCE (HONS) | NATIONAL UNIVERSITY OF SINGAPORE (NUS)

**AUG 2021 – JUL 2025**

- Major in Chemistry, Minor in Forensic Science, Minor in Interactive Media Development
- GPA: 4.78/5.0 (As of end of Y3S1)
- Dean's List Awardee in Y2S1
- Recipient of NUS Merit Scholarship

### GCE A' LEVELS | NANYANG JUNIOR COLLEGE

**JAN 2019 – DEC 2020**

H1 General Paper, H1 Project Work, H1 Chinese, H2 Biology, H2 Chemistry, H2 Mathematics, H2 Economics

## Skills & Abilities

### LABORATORY

- HPLC, GCMS, Column Chromatography, Ion Chromatography
- UV-Vis Absorption, UV-Vis Fluorescence, IR, Raman, and ICP-OES/AES
- Powder X-Ray Diffraction (PXRD)
- Ion-Selective Electrodes, Capillary Electrophoresis
- Differential Pulse Voltammetry (DPV), Square-Wave Voltammetry (SWV), Potentiometry
- NMR, MS, and TEM Data Analysis
- Steam Distillation and Simple Distillation
- Melting Point Determination

## Experience

### Electrochemical Intern | Aprisium Pte Ltd | Singapore

**May 2023 – Aug 2023**

- Tested and developed electrochemical systems involving voltametric techniques for metal detection.
- Prepared experimental buffers for regulating pH of sample solutions.
- Organised and managed laboratory equipment, chemical stocks, and experimental documentation.
- Sourced for relevant literature resources to improve experimental methods.

### Administrative Role | The Edu Experience | Singapore

**Dec 2021**

- Created 408 Mathematics word problems inspired by Primary 3 to 6 SA2 papers from different schools.
- Created detailed Mathematics diagrams for 408 word problems using MS Words.

## **Service Crew | Deli In The Park (Canopy) | Singapore**

**Jan 2021 – Aug 2021**

- Provided food and drink recommendations accordingly to boost daily sales.
- Concocted various drinks to serve (3 types of mocktails, coffee, etc.).
- Trusted in handling payments of up to \$400 via credit card or cash.
- Often handled customer service with only 2 other employees at lunch hours.
- Commended for significant growth on the job in terms of speed.

## **Projects**

### **IS THE SMELL OF FEAR REAL? | DATA STORY**

**DEC 2023**

- Created a data story using R and its packages such as Shiny and ggplot2.
- Manipulated and analysed a large dataset to arrive at conclusions.

### **BOND BRUSH | L'OREAL BRANDSTORM 2023**

**MAR 2023**

- Researched on existing sensor technologies and hair products.
- Proposed a new innovative idea in the hair industry – a brush paired with AI to analyse hair conditions.

### **MY PLANNER | WEB APPLICATION**

**JUL 2021**

- Developed a digital planner using Python, HTML, CSS, Javascript, and SQL.

## **Leadership Experiences**

### **CO-LEAD | MENTORING AT SINGAPORE RED CROSS CENTRE**

**Mar 2023 – Sep 2023**

- Organised a team to craft detailed plans of enrichment activities ranging from 0.5-2 hours.
- Guided Primary 3 - 4 students in their academic work in a 1-to-1 setting.
- Organised and led 20 students on a day trip to the Singapore Zoo.

### **PRESIDENT | PHOTOGRAPHIC SOCIETY**

**2017 - 2018**

- Led the Executive Committee in planning for regular sessions.
- Crafted the duty list for photographing school events.
- Organised members to carry out projects such as the SYF Art Exhibition, Open House booths, Welcome and Farewell events, etc.
- Communicated with the teachers-in-charge when needed.

## **Co-Curricular Activities**

### **MEMBER | KING EDWARD HALL – HALLPLAY (SETS)**

**Aug 2021- Dec 2021**

- Worked as a team with other members to craft the sets needed (panels, bed frames, etc.) for a play.
- Actively participated in CCA sessions by seeking things to assist with.
- Communicated with CCA leaders when issues surfaced and gave innovative suggestions accordingly.

## **Certifications**

- HarvardX's CS50x: CS50's Introduction to Computer Science - edX (2022)