

# SAMUEL TAN SZE WEE

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## EDUCATION

**National University of Singapore**

**Aug 2021 - Jul 2025**

**Bachelor of Engineering in Computer Engineering**

- Minor in Data Engineering
- Relevant course work: CS2113 Software Engineering & Object-Oriented Programming (A), CS2102 Database Systems (A), EE4204 Computer Networks (A), CS2107 Introduction to Information Security (A-)
- GPA: 4.43 / 5.0

## SKILLS

- Technical: Microsoft Power BI, Excel Macro (VBA), C/C++, Java, HTML & CSS, Javascript, Bootstrap 5, NodeJS, ReactJS, ExpressJS, EJS, MongoDB, MongooseJS, PostgreSQL, Git, Python, Verilog Hardware Description Language (HDL), AWS EC2, AWS Parallel Cluster

## WORK EXPERIENCE

**Project Officer, RSAF, HQ Air Force Supply Centre**

**May 2023 - Jul 2023**

- Streamlined data extraction from various Excel Spreadsheets through the implementation of an Excel Macro (VBA), resulting in a significant improvement in the accuracy of extracted data and reduction in staff data retrieval time
- Automated the generation of Microsoft Outlook emails with dynamic content derived from the extracted data, thereby optimizing communication efficiency
- This initiative has the potential to save up to 4 hours of man-hours per week
- Additionally, documented VBA codes in a Word document to enhance the sustainability and portability of the program
- This experience underscored the significance of effective communication, as it required me to gather user feedback and subsequently adapt and modify the program accordingly

**Project Officer, RSAF, Air Engineering & Logistics Department (AELD)**

**May 2022 - Jul 2022**

- Designed a user-friendly GUI form using Python's Tkinter framework to collect essential user parameters necessary for the execution of a backend Python program simulating aircraft faults

**Project Officer, The Republic of Singapore Air force (RSAF)**

**Dec 2020 - Jul 2021**

- Utilized Microsoft Power BI to analyse and visualize fault data, developing interactive dashboards for tracking fault trends, identifying trend patterns, and providing actionable insights to support data-driven decision-making

## PROJECTS

**Leader, Personal Website**

**Jan 2024 - Present**

- Created a personal website utilizing ReactJS, HTML, and CSS to enhance and exhibit my frontend proficiency
- This project not only served as a valuable practice ground but also played a pivotal role in solidifying my frontend expertise, breaking through the confines of tutorial-centric learning

**Member, CG2271 Real Time Operating System Group Project**

**Aug 2023 - Nov 2023**

- Constructed a remote-control car together with 4 other group members by applying Real-Time Operating System (RTOS) knowledge gained during the semester
- Employed mutex and semaphores from the Keil RTX library to schedule the car's actions, showcasing practical implementation of RTOS concepts

**Member, CS2113 Group Project****Feb 2023 - Apr 2023**

- Collaborating with my group, we developed a command-line interface (CLI) money manager application using Java, capable of executing CRUD operations on user expenses and income
- Implemented local storage to preserve data upon program exit
- Performed JUnit testing on most of the methods utilised in the project
- Leverage Git and GitHub facilitated code synchronization and version control
- Throughout the project, I acquired valuable insights into creating thorough user and developer guides using Markdown, integrating UML diagrams for enhanced clarity
- Additionally, I demonstrated effective teamwork by providing assistance to team members facing challenges

**CO-CURRICULA AND VOLUNTEER EXPERIENCE**

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**Member, TOUCH Young Arrows (TYA)****Aug 2019 - Aug 2021**

- Volunteered at TYA, consisting of a team of volunteers conducting weekly Saturday programmes to meet children emotional, social and educational needs