DAVIAN KHO YONG QUAN

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Availability Period: May 2024 – Dec 2024

SKILLS AND TECHNOLOGIES

- **Languages:** Fluent in English and Mandarin (both spoken and written)
- **Programming Languages:** C/C++, Python, Dart, Verilog, Java, JavaScript, HTML/CSS
- **Frameworks and Technologies:** Flutter, RESTFUL API, Git/GitHub, Robot Operating System, Android Studio, NodeJS, ReactJS

PROJECTS AND ACTIVITIES

Steganography on FPGA   Sep 2023 – Nov 2023
- Created a bitstream that allowed the BASYS 3 FPGA to encrypt and hide data into a locally stored image
- Utilised **Hardware Description Language** and **Parallel Hardware Coding**

Full Stack Application Development   May 2023 – Jul 2023
- Built an Android-based mobile application using the **Flutter Framework** and **Dart**
- Main features include **real time notifications** and **chatting** powered by **Firebase**, dynamic **item sorting** and **cataloguing**
- Utilised **Firebase** for **User Authentication** and **NoSQL** database storage
- Created a **user interface** with **Flutter Widgets** and followed a **consistent visual hierarchy** for better **usability**

ALEX The Search and Rescue Robot   Feb 2023 – Apr 2023
- Built a robot using **Robot Operating System**, **Raspberry PI 4** and **Arduino Uno**, utilising **LiDAR** to map the local environment.
- Used **nCurses library** on C++ to create a **user-friendly GUI** terminal, helping the user see information about the robot. Continuous input was also used on CLI, with **bare metal programming** on **Arduino**

Colour Decoding and Maze Solving Robot   Oct 2022 – Nov 2022
- Built and designed a maze solving robot that can decode colours and solve a maze, while avoiding collisions
- Used **mCore**, powered by **mBot library** and **Arduino**

Cyber Defenders Discovery Camp, DSTA   Jun 2019
- Awarded Bronze Award for Junior Category

WORK AND INTERNSHIP EXPERIENCES

The Boiler PTE LTD, Senior Bar/Service Executive   May 2022 – Jul 2022
- Displayed **leadership** by **leading a team of service crew** after joining for a month, from opening to closing, ensuring customer's needs and reservation requirements were met
- Managed the stocktaking of every single beverage sold within the restaurant and handled up to $5000 cash in daily transactions with 100% accuracy
- **Sold the most vouchers** and had the **most reviews** for two consecutive months
- Demonstrated **inter-personal skills**, by managing and fulfilling all of customers' wants and needs

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Republic Of Singapore Air Force, Pilot (Trainee)   **Jul 2020 – Apr 2022**
- Managed and **planned duty roster** for the entire course, ensuring everyone was fairly given duties and resolved conflicts when necessary, allowing for smoother and more efficient day-to-day operations
- **Streamlined operations** within squadron, by employing digitisation of logbooks to allow ease of tracking and use
- Planned the course's timetable, to ensure timely completion of required pre-requisites before departure for overseas training

EDUCATION

National University of Singapore   **Aug 2022 - Present**
Bachelor of Engineering (Honours), Computer Engineering
- Expected Date of Graduation: May 2026
- Relevant Modules Taken: CS2040C Data Structures and Algorithms, CP2106 Independent Software Development Project, CG1111A/2111A Engineering Principles and Practice, EE2026 Digital Design, CS2113 Software Engineering and OOP (Ongoing)

CO-CURRICULAR ACTIVITIES AND VOLUNTEER EXPERIENCES

Vice-President, NUS Muay Thai   **Sep 2023 – Present**
- Directed the smooth running and execution of tasks delegated to the executive committee
- Organised recreational classes for the NUS student body

Deputy Director of Publications, NUS Computing Club   **Sep 2023 - Present**
- Delegated tasks for subcommittee members, ensuring that they meet their deadlines

Orientation Group Leader, NUS Freshman Orientation Week   **Aug 2023**
- Facilitated the well-being of freshmen during the course of the camp
- Interacted with different people of different backgrounds to ease their university transition

Publications Director, NUS Outdoor Adventure Club   **Sep 2022 – Sep 2023**
- Created and designed appealing posters for publicity before and after events
- Executed events with fellow committee members for participants

Events Cell, Project OceaNUS   **Aug 2022 – Aug 2023**
- Led a team up a mountain daily for the construction of a water filter for a remote village in Suối Quyền, Vietnam
- Spearheaded Local Community Projects for project members

Private Pilot (Mentor), Singapore Youth Flying Club   **Feb 2019 – Dec 2019**
- Guided the new incoming pilot trainees, by imparting knowledge and tips to allow them to do well in training