

# Muqaffa Al-Afham Bin Kamaruzaman



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An adaptable, fast-learning scholar with a passion for elegant and efficient coding. I hope to contribute to an open-minded, ever-evolving company with an amicable environment.

## EXPERIENCE

### Software Engineer Intern (Robotics Team), Klass Engineering & Solutions

Jul 2022 – Dec 2022

- ❖ Designed and implemented ROS/ROS2 packages in C++ and Python to improve communication with our robot
- ❖ Developed state management code in Python in the team's backend stack (Flask)
- ❖ Modified and implemented ReactJS components in the frontend
- ❖ Independently implemented the Boustrophedon Cellular Decomposition Algorithm in Python for the robot's path planning

## EDUCATION

### Nanyang Technological University (NTU) – Computer Science

Aug 2020 – Jun 2024 (Expected)

- ❖ Bachelor of Engineering (Computer Science) – CGPA: 4.64 / 5.00
- ❖ NTU College Scholar
- ❖ Relevant Courses: Algorithms Design & Analysis (A+), Data Structures & Algorithms (A+), Operating Systems (A+), Object-Oriented Design & Programming (A), Computer Security (A), Introduction to Databases (A-), Software Engineering (A-)

### National University of Singapore (NUS) – Exchange Program

Jan 2022 – May 2022

- ❖ Selected for Singapore Universities Student Exchange Program (SUSEP) granted to only 200 students
- ❖ Relevant Courses: Parallel & Concurrent Programming, Computer Networks, Database Systems Implementation

### Ngee Ann Polytechnic (NP) – Engineering Science

Apr 2015 – Apr 2018

- ❖ Diploma in Engineering Science – GPA: 3.94 / 4.00
- ❖ Diploma Plus in Advanced Engineering Mathematics
- ❖ Attained Director's List (Top 10% of cohort) in 3 Semesters: 1.2, 2.1 and 3.1

## PROJECTS

### BingeBuddy – Web Application

Jan 2023

- ❖ A web app that recommends TV shows to the user. Recommendations change based on currently-selected show
- ❖ Framework/Languages used: ReactJS, CSS, HTML, Bootstrap
- ❖ View the app on <https://show-recommender-two.vercel.app/>

### Simon Game – Web Game Application

Jul 2022

- ❖ A simple web game app based on *Simon* by Ralph H. Baer and Howard J. Morrison
- ❖ Frameworks/Languages used: CSS, HTML, Bootstrap, jQuery
- ❖ Play the game on: <https://purifish.github.io/Simon-Game/>

### Dolphine – Bus/MRT Smartphone Application

Aug 2021 – Oct 2021

- ❖ Part of a team that developed a commute application, similar to common bus apps available, but with added features
- ❖ Developed key algorithms and part of the backend
- ❖ Frameworks/Libraries used: React Native, Node.js, Express.js, MongoDB, Firebase
- ❖ Led the documentation for the app
- ❖ [App Demo Video](#)

## TECHNICAL SKILLS

- ❖ **Programming Languages:** C++, Java, Python, JavaScript/TypeScript, C, Go, HTML, CSS, SQL
- ❖ **Tools/Frameworks:** ReactJS, Node.js, Express.js, MongoDB, Git, Linux, ROS, ROS2, Flask, Docker, Bootstrap, jQuery

## CERTIFICATES/COURSES

- ❖ React, NodeJS, Express & MongoDB - The MERN Fullstack Guide, Udemy **Feb 2023**
- ❖ React + Redux, The Beginner Guide (2023 Edition), Udemy **Feb 2023**

## CO-CURRICULAR ACTIVITIES

### President, Chess Club, Ngee Ann Polytechnic

Apr 2017 – Apr 2018

- ❖ Maintained balance between training and recreation for all members. Planned and coordinated numerous events such as camps and tournaments. Led the club to attain over a dozen trophies/medals during presidency