BENJAMIN CHRISTOPHER TOH

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EDUCATION

Bachelor of Engineering (Hons), Computer Engineering,   **Aug 2021 – May 2025**
National University of Singapore
- Minor in Data Engineering
- Current CAP: 4.7 / 5.0
- **Relevant Coursework:** Programming Methodology (Python), Data Structures & Algorithms, Software Engineering & OOP, Introduction to Machine Learning, Computer Networks

TECHNICAL SKILLS

- **Programming Skills:** C/C++, Javascript, Python, Java, HTML, CSS
- **Database/ Cloud:** MongoDB, PostgreSQL, Microsoft Azure, Google Cloud
- **Frameworks:** Reactjs, React Native, Next.js, Flask, TailwindCSS, Nodejs, Express, SwiftUI, ThreeJS
- **Tools:** Git/GitHub, Docker, Kubernetes, Figma

WORK EXPERIENCE

Software Engineer Intern, Trilogy Technologies   **May 2023 – Present**

- Designed and built backend architecture single-handedly with Microsoft Azure IoTEdge and Functions to handle high volume data processing and scalability for an IoT monitoring system.
- Developed a full-stack web application to visualise and analyse IoT data using React, Flask and PostgreSQL in a Test-Driven Development environment and adopting a Factory Method design pattern.
- Prototyped a coordinate system from scratch with Ultra-Wideband technology and ESP32 microcontrollers for high precision indoor location calculations.

RELEVANT PROJECTS

Trippin – Self-initiated:
- Developed and deployed a full stack web app to allow users to plan trips for location-based and real-time collaborative planning using Next.js, Nodejs, Express, MongoDB and Google Maps API.

myKampung – SUTD What the Hack 2022 Hackathon Winner:

- Achieved first place in this 48-hour hackathon with over 200+ participants.
- Developed a mobile app to allow residents of the same HDB block to connect with announcements and utility groups using React Native and Firebase.

Office Quest – DSTA Code_Exp 2023 Hackathon Finalist:

- Developed a full stack mobile app to gamify employee experience with a gacha and reward tier system with React Native, Express, NodeJS and MongoDB.
- Designed backend architecture and database design while implementing majority of RESTful API routes.

Thriftr – Self-initiated:
- Developed a mobile app in a small team of 2 allowing users to shop and sell second-hand clothes with a Tinder-inspired matching gimmick of swiping using React Native Expo, Firebase and TailwindCSS.

LEADERSHIP EXPERIENCE

Raffles Hall Volunteer Corps Volunteer – NUS Raffles Hall   **Aug 2021 – April 2023**
- Organised a fundraiser as Head of Publicity to raise funds for HCA beneficiary which exceeded expected funds raised.
- Received the Merit and Campus Choice Awards for the annual NUS Student Life Award for the CCA through Project Rhino as a volunteer to tutor underprivileged children online.