TAN WEI QIANG BENJAMIN

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EDUCATION & QUALIFICATION

Bachelor of Engineering (Electrical Engineering), National University of Singapore (NUS) — **AUG 2018 – PRESENT**

- Specialising in Internet of Things and 5G and Next Gen Networks

JOB EXPERIENCE

Automation Engineer Internship — **MAY 2021 – PRESENT**

- Summation Run 7
- An apprenticeship program under SGInnovate to match top students with high potential deep tech start-ups in the field of AI, Cybersecurity, IoT, Robotics and Quantum Computing.

Coding Tutor Freelance — **JUL 2020 – MAY 2021**

- Delivered clear and easy-to-digest contents to students from age 7-15 with weekly notes to facilitate learning.
    - Course 1: Indie Game Design
        - Used open-source library (SFML) for the rendering of window, graphics, and audio modules.
        - Created classical games such as Tetris and Race Car.
    - Course 2: Basic Frontend Development (UI/UX)
        - Using HTML and CSS to design and build websites using open-source templates.
        - Creating sub-domains to make their website public.
        - Using modern web development tools such as Google Sites to create websites using GUI method.
        - Sample: https://btwq97.github.io

Internet of Things Engineer Internship — **MAY 2020 – DEC 2020**

- Revised and updated company's firmware applications in Linux OS.
- Explored many communication protocols such as MQTT and Modbus.
- Established cloud to device control using MQTT from scratch.
- Devised encryption and decryption functionality using openSSL for JSON string transfer from scratch.
- Wrote a Python script to automate email subscription services from scratch.

RELEVANT COURSEWORKS

CS2040C Data Structures and Algorithms — **AY20/21 S2**

- Learning fundamental data structures and algorithms concepts.

EE2028 Microcontroller Programming and Interfacing — **AY19/20 S1**

- Programmed LPC 1769 ARM Cortex M3 Baseboard using NXP LPCXpresso (C programming and ARM Assembly language).

CS1010E Programming Methodology — **AY19/20 S1**

- Learnt fundamental programming concepts in Python.

EE2026 Digital Design — **AY18/19 S2**

- Programmed Digilent Basys 3 FPGA Baseboard using Xilinx Verilog (C programming).

LEADERSHIP EXPERIENCE

AIESEC in NUS | Global Information Session 2019 | Team Leader (Marketing) — **SEP 2019**

- Planned and executed marketing strategies to promote AIESEC Volunteering Projects to the NUS student body.

AIESEC in NUS | August Recruitment OC 2019 | Team Leader (Logistics, Finance and Admin Matters) — **JUN 2019 – AUG 2019**

- Negotiated with external companies for product and cash sponsorships.

Engin' Club | Engin' O'Week 2019 | Head of Programs (Games, Academics and Finale) — **MAY 2019 – JUL 2019**

- Oversaw 3 sub-groups and executed a freshmen orientation camp with over 900 participants.

Electrical and Computing Engineering (ECE) Club | Impetus Camp 2019 | Organising Committee (Games) — **MAY 2019 – JUL 2019**

- Assisted with the execution of the games and logistical matters during orientation camp.

RELEVANT CERTIFICATIONS / AWARDS

Google Cloud Platform Big Data and Machine Learning Fundamentals — **JAN 2021**

- Used GCP interface for big data analysis and machine learning.
- Created VM instances for cloud storage purposes.

NUS iDP Ideathon -- Ideate 2020 — **AUG 2020**

- Topic: Innovate ways to improve remote collaboration (link: https://ideate2020.devpost.com/).
- Solution: A software application that uses computer's camera to scan and predict emotions through Artificial Intelligence and Machine Learning Algorithms.
- Result: 1st Place (out of 85 participants).

RELEVANT SKILLS

- Hard skills:
    - Linux OS and command line interface.
    - C / C++ (for embedded systems and scripting).
    - Python (for scripting).
- Proficient in English and Chinese (simplified) languages.
- Comfortable with the use of collaboration tools such as Gitlab, Google Drive, Slack and Jira.