TAN WEI QIANG BENJAMIN

HP: +65 8145 6842 | E-mail: benjamin_tan@u.nus.edu | 🛅 https://www.linkedin.com/in/tanweigiang/ | 🔤 https://github.com/btwq97

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 **Internet of Things 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 **MAY 2019 - JUL 2019** (Games) 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.