

# TAN WEI QIANG BENJAMIN

HP: +65 8145 6842 | E-mail: [benjamin\\_tan@u.nus.edu](mailto:benjamin_tan@u.nus.edu) | <https://www.linkedin.com/in/tanweiqiang/> | <https://github.com/btwq97>

## EDUCATION & QUALIFICATION

<b>Bachelor of Engineering (Electrical Engineering), National University of Singapore (NUS)</b> <ul style="list-style-type: none"><li>Specialising in Internet of Things and 5G and Next Gen Networks</li></ul>	<b>AUG 2018 – PRESENT</b>
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## JOB EXPERIENCE

<b>Automation Engineer Internship</b> <ul style="list-style-type: none"><li>Summation Run 7</li><li>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.</li></ul>	<b>MAY 2021 – PRESENT</b>
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<b>Coding Tutor Freelance</b> <ul style="list-style-type: none"><li>Delivered clear and easy-to-digest contents to students from age 7-15 with weekly notes to facilitate learning.<ul style="list-style-type: none"><li>Course 1: Indie Game Design<ul style="list-style-type: none"><li>Used open-source library (SFML) for the rendering of window, graphics, and audio modules.</li><li>Created classical games such as Tetris and Race Car.</li></ul></li><li>Course 2: Basic Frontend Development (UI/UX)<ul style="list-style-type: none"><li>Using HTML and CSS to design and build websites using open-source templates.</li><li>Creating sub-domains to make their website public.</li><li>Using modern web development tools such as Google Sites to create websites using GUI method.</li><li>Sample: <a href="https://btwq97.github.io">https://btwq97.github.io</a></li></ul></li></ul></li></ul>	<b>JUL 2020 – MAY 2021</b>
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<b>Internet of Things Engineer Internship</b> <ul style="list-style-type: none"><li>Revised and updated company's firmware applications.</li><li>Explored many communication protocols such as MQTT and Modbus.</li><li>Established cloud to device control using MQTT from scratch.</li><li>Devised encryption and decryption functionality using openssl for JSON string transfer from scratch.</li><li>Wrote a Python script to automate email subscription services from scratch.</li></ul>	<b>MAY 2020 – DEC 2020</b>
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## RELEVANT COURSEWORKS

<b>CS2040C Data Structures and Algorithms</b> <ul style="list-style-type: none"><li>Learning fundamental data structures and algorithms concepts.</li></ul>	<b>AY20/21 S2</b>
<b>EE2028 Microcontroller Programming and Interfacing</b> <ul style="list-style-type: none"><li>Programmed LPC 1769 ARM Cortex M3 Baseboard using NXP LPCXpresso (C programming and ARM Assembly language).</li></ul>	<b>AY19/20 S1</b>
<b>CS1010E Programming Methodology</b> <ul style="list-style-type: none"><li>Learnt fundamental programming concepts in Python.</li></ul>	<b>AY19/20 S1</b>
<b>EE2026 Digital Design</b> <ul style="list-style-type: none"><li>Programmed Digilent Basys 3 FPGA Baseboard using Xilinx Verilog (C programming).</li></ul>	<b>AY18/19 S2</b>

## LEADERSHIP EXPERIENCE

<b>AIIESEC in NUS   Global Information Session 2019   Team Leader (Marketing)</b> <ul style="list-style-type: none"><li>Planned and executed marketing strategies to promote AIIESEC Volunteering Projects to the NUS student body.</li></ul>	<b>SEP 2019</b>
<b>AIIESEC in NUS   August Recruitment OC 2019   Team Leader (Logistics, Finance and Admin Matters)</b> <ul style="list-style-type: none"><li>Negotiated with external companies for product and cash sponsorships.</li></ul>	<b>JUN 2019 – AUG 2019</b>
<b>Engin' Club   Engin' O'Week 2019   Head of Programs (Games, Academics and Finale)</b> <ul style="list-style-type: none"><li>Oversaw 3 sub-groups and executed a freshmen orientation camp with over 900 participants.</li></ul>	<b>MAY 2019 – JUL 2019</b>
<b>Electrical and Computing Engineering (ECE) Club   Impetus Camp 2019   Organising Committee (Games)</b> <ul style="list-style-type: none"><li>Assisted with the execution of the games and logistical matters during orientation camp.</li></ul>	<b>MAY 2019 – JUL 2019</b>

## RELEVANT CERTIFICATIONS / AWARDS

<b>Google Cloud Platform Big Data and Machine Learning Fundamentals</b> <ul style="list-style-type: none"><li>Used GCP interface for big data analysis and machine learning.</li><li>Created VM instances for cloud storage purposes.</li></ul>	<b>JAN 2021</b>
<b>NUS iDP Ideathon -- Ideate 2020</b> <ul style="list-style-type: none"><li>Topic: Innovate ways to improve remote collaboration (link: <a href="https://ideate2020.devpost.com/">https://ideate2020.devpost.com/</a>).</li><li>Solution: A software application that uses computer's camera to scan and predict emotions through Artificial Intelligence and Machine Learning Algorithms.</li><li>Result: 1<sup>st</sup> Place (out of 85 participants).</li></ul>	<b>AUG 2020</b>

## RELEVANT SKILLS

<ul style="list-style-type: none"><li>Hard skills:<ul style="list-style-type: none"><li>Linux OS and command line interface.</li><li>C / C++ (for embedded systems and scripting).</li><li>Python (for scripting).</li></ul></li></ul>	<ul style="list-style-type: none"><li>Proficient in English and Chinese (simplified) languages.</li><li>Comfortable with the use of collaboration tools such as Gitlab, Google Drive, Slack and Jira.</li></ul>
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