



# TAN JIN CHUN

Electrical and Computer System Engineer

Phone

+6011-24215639

Student Email

jtan0260@student.monash.edu

Links

[Linkedln](#)

Personal Email

nigeltanjc@gmail.com

## About Me

As a final year Electrical and Computer System Engineering student at Monash University Malaysia, I have a deep interest in creating impactful software and hardware solutions. My curiosity extends beyond my main discipline, making me a well-rounded team player. I'm looking forward to using these skills and perspective to contribute to your team while fully realizing my potential.

## Achievements

- MDA d Young Achievers - Finalist
- James Dyson Award 2021
- Education Excellence Award (Pingat Kecemerlangan Pendidikan)
- Monash High Achiever Award
- Leap Into Leadership Champion (12 Star Achievement)
- Jeffrey Cheah Entrance Scholarship 2019
- Jeffrey Cheah Special Scholarship 2019
- UCSI University Trust Scholarship 2019 (Principal's Award)
- King's Scout (Pengakap Raja)
- National Leader Scout Award (Anugerah Ketua Pengakap Raja)
- Outstanding Student Award (Anugerah Murid Cemerlang)
- Excellence Service Award (Anugerah Khidmat Cemerlang)
- SPM Subject Award (Chemistry - 2017, Geography - 2014)

## Expertise

- MATLAB and Python Programming
- C, C++ and C# Programming
- Electric Power System (PSS/E) and Circuit Analysis (LTSpice)
- SolidWorks and Autodesk Fusion 360
- Assembly Language (NIOS II, MIPS)
- Git
- Zsh and Bash
- Simulink
- Linux (Debian)
- HTML, CSS and Javascript
- Microcontrollers (PSoC)
- FPGA (Field Programmable Gate Array)
- Hardware Description Language (Verilog)
- Wireshark
- ModelSim and Quartus
- Siemens PLC (Programmable Logic Controller)

## Soft Skills

- Leadership and Interpersonal Communication
- Adaptable and Versatile
- Stress Management and Resilience
- Creativity and Innovation
- Conflict Resolution and Time Management
- Problem Solving and Critical Thinking
- Teamwork and Collaboration

## Certifications

- Microsoft Certifications
- Keysight Certifications
- AWS Skill Builder
- Typhoon HIL Specialist
- Google IT Support
- MATLAB Programming for Engineers and Scientist (Specialization), Vanderblit University
- Python Programming
- Google Data Analytics
- Google Project Management
- C for Everyone: Structured Programming (With Honors), University of California, Santa Cruz
- Web Design for Everybody: Basics of Web Development and Coding, University of Michigan - School of Information
- Artificial Intelligence Foundations Specialization, IBM
- Linux Foundation Certificates
- Electric Power Systems, University at Buffalo
- MATLAB and Simulink Onramp
- Google Cloud Skill Boost
- Credly

## Language

- English
- Chinese
- Malay

## Experience

### Monash TeaMWork | Virtual Intern

Jun 2024 - July 2024

- Engaged deeply in the fields of technology and data as part of Monash University's TeaMWork program.
- Worked with a diverse team of experts from various disciplines that that utilize both new technologies and innovative methodologies.
- Applied technical skills in areas such as software development and data management.

### Keysight Malaysia | R&D Firmware Intern

Nov 2023 - Feb 2024

- Led the upgrade of CLLC converter control systems in Project Hornbill, achieving efficient voltage conversion by migrating code to a newer MCU model.
- Played a pivotal role in the development and IEC61010 standard compliance testing of a new DAQ Card, enhancing safety and performance.
- Standardized the calibration process for an Arbitrary Waveform Generator through detailed documentation and hands-on calibration.

### Sunway XFarms | Senior Apprentice

Oct 2022 - Mac 2023

- Led a team of 3 apprentices and managed the farm's operations to optimize plant growth.
- Drove R&D initiatives to boost crop yields and implemented IoT integrations with IT experts.
- Developed the farm's system architecture using advanced sensors like DHT11 and DB18B20.

### Virtual Work Experience

2022 - 2024

- Forage - Agile Methodology Job Simulation, Data Analytics and Visualization Virtual Experience
- EA Australia (Prosple) - Electrical Engineering and Mechatronics Engineering Virtual Experience
- Springpod - Siemens: Virtual Work Experience, Fujitsu: Quantum Computing

## Education

### Bachelor of Electrical and Computer System Engineering (Honours) | Monash University Malaysia

2020 - 2024

- Currently completing my final year in the program.

### 42 Kuala Lumpur by Sunway Education Group & Khazanah Nasional Berhad | Sunway FutureX

2023 - 2024

- Passed the Piscine at Level 10
- Currently undertaking the Ecole Core Program (Level 2)

### Cambridge GCE A-Levels | Sunway College

2019 - 2020

- Obtained 4A\* (Mathematics, Physics, Chemistry, Economics)

### SPM (Sijil Pelajaran Malaysia) | SMK Seafield

2014 - 2018

- Obtained 7A+, 2A, 1A-

## Projects | Github

### Digital Controlled Oscillator for Piano Synthesizer

- Developed a cost-effective Digital Controlled Oscillator for a Piano Synthesizer using the ADALM2000.

### Downsampling Research Project

- Conducted in-depth analysis of audio and image downsampling effects, using MATLAB simulations to highlight audio aliasing and the importance of Anti-Aliasing Filter (AAF) techniques.
- Experimented with various methods, determining the most effective approaches for maintaining optimal audio/image integrity, especially under higher downsampling rates.

### Advanced Gait Analysis using MATLAB

- Utilized noise filtering in MATLAB to enhance the clarity and accuracy of gait data, specifically focusing on Vertical Ground Reaction Force (VGRF) parameters.
- Analyzed VGRF parameters to offer biomechanical insights and validate findings with real-world gait equipment and data.

### Hybrid Lighting Solar System

- Directed a 5-member team in pioneering a solar hybrid lighting system, integrating the innovative Kanawa Tsugi concept.
- Collaborated closely with Germany-based Professor Eckert for expert guidance, culminating in a prototype's successful construction.
- Proud nominee of the esteemed [James Dyson Award 2021](#)

### FSM-Based BCD Counter Design and Optimization Project

- Design and optimize a counter using Verilog HDL with the purpose of minimizing the total number of logic cells used

## Extracurricular Activities

- Student Member of [Institution of Engineers, Malaysia](#) and [Association of Computing Machinery](#) (2024)
- Student Member of [Engineers Australia](#) and [Australian Computer Society](#) (2021 - Present)
- Scouter for 91st Petaling Scout Troop of Seafield (2019 - Present)
- Student Member of [Institute of Electrical and Electronics Engineers](#) and [Computer Society](#) (2021 - 2024)
- Junior Executive for AIESEC, International Association of Students in Economics and Business (2021)
- Volunteer for AskBees as a SPM Tutor in Mathematics, Physics and Chemistry (2021)
- Volunteer for MAKNA, Majlis Kanser Nasional (2021)
- President for Asset Management Club and Secretary for Ping Pong Club (2018)