

# TAN YONG JIE

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## EDUCATION

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### Singapore Institute of Technology

Bachelor of Engineering with Honors in Robotics Systems

Sep 2024 - Present

### Nanyang Polytechnic

Diploma in Robotics & Mechatronics Engineering

Apr 2019 - Mar 2022

- Graduated with a Grade Point Average of 3.54
- Awarded Director List for 3 semesters

### Institute of Technical Education

Higher National ITE Certificate in Mechatronics Engineering

Apr 2017 - Mar 2019

- Awarded Director List for 3 semesters
- Graduated with Certificate of Merit and Outstanding Graduate Award in 2019

## EXPERIENCE

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### Kodecoon Academy

Teacher

May 2024 - Sep 2024

- Coached students for robotics competitions including First Lego League (FLL) and National Robotics Competition (NRC) using SPIKE Prime and block-based programming.
- Cultivated problem-solving, creativity, and collaboration skills in students aged 9 to 15.

### Singapore Police Force

Ground Response Force (Full Time National Service)

May 2022 - May 2024

- Perform counter duties such as lodging police report, provide feedback and advise, and attending to police emergency hotline calls
- Perform ground patrolling to ensure safety of the neighborhoods and being the first responder to police emergency hotline

## LEADERSHIP & COMPETITION EXPERIENCE

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### Worldskills Singapore National Competition, Mechatronics

2018, 2020-2021

- Awarded Medallion of Excellence in Mechatronics in 2020 and 2021
- Design, build, maintain and repair automated equipment, and programme equipment control systems uses shortest time and industry standard
- Programming using Panasonic Programmable Logic Controller (Ladder diagram and Sequential function chart)

### Singapore Institute of Technology

Group Leader – C Programming Project, C++ Programming Project, Systems Engineering Project 1 2024, 2025

- Led a team of 7 members in multiple programming and engineering projects.
- Coordinated task allocation, version control (Git), and testing processes to meet academic milestones.
- Facilitated code reviews, weekly team meetings, and maintained documentation consistency.
- Oversaw the Systems Engineering Project 1, implementing autonomous navigation using ROS1 and the LIMO robot.

## SKILLS & INTERESTS

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- Language: English & Mandarin (Spoken & Written)
- Engineering skills: Hands-on experience with ROS1 for autonomous navigation, SLAM (RTAB-Map), LiDAR integration, and path planning.
- Programming & Software skills: C | C++ | Python | ROS1
- Leadership skills: Active Listener | Responsible | Innovative | Honest | Confident
- Communication & Presentation Skills: Reflective | Open mindedness | Collaborative
- Interests: Enjoys cycling and music