THUAN DING YU

AEROSPACE SOFTWARE ENGINEER

DETAILS

ADDRESS
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Singapore

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LANGUAGES

English
● ● ● ● ●

Chinese
● ● ● ● ○

TECHNICAL & SOFT SKILLS

Collaboration
● ● ● ● ●

Problem Solving
● ● ● ● ○

Adaptability
● ● ● ● ○

Organisation
● ● ● ● ●

Communication
● ● ● ● ○

Critical Thinking
● ● ● ● ●

Programming
● ● ● ● ●

Software Engineering
● ● ● ● ●

Web - Development
● ● ● ● ●

Database Systems Management
● ● ● ● ○

PROFILE

Dynamic Software Systems Engineer Intern at Orion Avionics Solutions, adept in C/C++ programming and problem-solving. Achieved an 18% reduction in telemetry data processing latency and co-developed a simulation environment enhancing integration testing. Strong collaborator with excellent communication skills, committed to delivering innovative solutions in embedded software for UAVs and satellites.

EMPLOYMENT HISTORY

Software Systems Engineer Intern, Orion Avionics Solutions – Singapore
Singapore

May 2023 — Jan 2024

Overview:

Worked as part of a cross-functional engineering team developing embedded software systems for avionics applications used in unmanned aerial vehicles (UAVs) and small satellites.

Key Responsibilities:

- Designed and implemented real-time embedded software in C/C++ for flight control and telemetry modules.
- Assisted in the development of fault-tolerant systems for satellite attitude control using simulated sensor inputs.
- Used MATLAB/Simulink to model control system behavior and validate system dynamics before software integration.
- Collaborated with hardware engineers to ensure seamless software-hardware integration on STM32 and TI DSP platforms.
- Implemented CAN bus protocols for inter-module communication in avionics subsystems.
- Participated in Agile sprints, daily stand-ups, and documented all code changes following DO-178C guidelines for aerospace software compliance.
- Performed unit testing and regression testing using Python and Google Test framework to ensure robust performance.

Achievements:

- Reduced latency in telemetry data processing by 18% through software optimization.
- Co-developed a simulation environment to test flight control logic, which led to earlier detection of integration bugs.

Tools & Technologies:

C/C++, Python, MATLAB/Simulink, Git, Jira, STM32, CAN Bus, RTOS, Google Test, DO-178C standards

EDUCATION

Diploma In Aerospace & Aeronautical Technology, Nanyang Polytechnic
Singapore

Apr 2022 — Apr 2026

Graduated with a Diploma in Aeronautical & Aerospace Technology

GPA: 3.8

Providing a strong foundation and excelling in aircraft systems, flight mechanics, and aerospace engineering principles.

Achievements:

- Admitted to Director's List in 2023/24 & 2024/25
- Consistently obtained merit awards yearly

CCA:

- 2022-2025: Senior position in Basketball

- Foster teamwork and communication

- 2022-2025: Senior position in Canoe Sprint

- Build team and competitive spirit

- 2022-2025: Senior position in SEG club

- Hosted countless events, improving leadership, teamwork and communication skills

N Level, Mayflower Secondary School   Singapore
Jan 2018 — Jan 2022

Graduated with a strong foundation in academic excellence and core values such as integrity, respect, and responsibility.

N Level Score: 10

Achievements:

- **Outstanding Service Award** – Recognised for contributions to school events and peer mentoring programmes.
- **Edusave Merit Bursary** – Awarded for consistent academic performance and good conduct.
- **Values in Action (VIA) Leadership Recognition** – Led a team project to raise awareness for environmental sustainability.

CCA:

- **Basketball (School Team)** – Represented school in zonal competitions; trained weekly and participated in inter-school tournaments.
- **Student Council Member** – Helped coordinate school events like Teacher's Day and Sports Day.

REFERENCES

Ho Kin Cheng from Nanyang Polytechnic, School of Engineering
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Matthew Chan from Mayflower Secondary School
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