6 Dec 2024

Testimonial – Ms THO Jia Qi

Dear Sir / Mdm,

Jia Qi served as an engineering intern at the Aircraft Engineering Department (AED) from 6 May 2024 to 6 Dec 2024. AED is a department within the Cabin Interior & Engineering Solutions of ST Engineering, Commercial Aerospace. The department is responsible for all structure designs and substantiation, mechanical systems and environment control systems, weight and balance and interior reconfiguration.

During her time here, Jia Qi was assigned to the ACCESS Lavatory project, which is an aircraft lavatory that is designed for Passengers with Reduced Mobility (PRM). Her main tasks include using CATIA v5 and CREO Parametric 10 to prepare 3D CAD models and 2D engineering drawings, preparing engineering documents such as test plans and analysis reports. These require her to come up with innovative designs to solve real-world engineering problems and then convert the designs into 2D engineering drawings for manufacturing and assembly. Preparing the test plans and reports also exposed her to airworthiness requirements and the different means of compliance.

Apart from her main tasks, Jia Qi also volunteered to be involved in one of our CSR projects, which involves designing a wheelchair rain shelter for patients with cerebral palsy. She had the opportunity to interact with clients from the Cerebral Palsy Alliance Singapore (CPAS) to understand the real problems they faced to develop a solution that it customized to their needs. By leveraging on additive manufacturing and the resources within the company, she managed to deliver a working prototype to CPAS for a user trial.

As an engineering intern, Jia Qi had to be familiar with using different CAD software on a daily basis. She had to consider different factors during the design stage to ensure that it is something that is economical, sustainable and most importantly able to solve the problem. Jia Qi also made use of the 3D printer extensively to test out different prototypes and prepare mockups for trial on the aircraft. Through this, she managed to optimize her designs and finally deliver a final concept that is acceptable to the clients.

This internship gave Jia Qi a glimpse of the aerospace industry and appreciate first-hand how her design can be incorporated onto an aircraft. Though her commitment and dedication, she managed to complete all of her tasks within the deadlines set. She is well-liked by the other team members and is never shy to contribute new ideas. Overall, I found Jia Qi to be a responsible and reliable intern. I therefore urge you to consider her for her diligence and good work ethics

Yours Sincerely,

Nigel Choong
Assistant Principal Engineer
Cabin Interior & Engineering Solutions

Dr Gianmarco Radice
Singapore Institute of Technology
10 Dover Drive
Singapore, 138683

20 March 2025

To whom it may concern,

I have known Miss Tho Jia Qi for three years now, through my role of Programme Leader for the B.Eng (Hons) in Aerospace Engineering. Over the last year Miss Tho successfully completed her Integrated Work-Study Programme at ST Engineering Aerospace for which I was her academic supervision. Throughout her internship she demonstrated exceptional technical proficiency, solid analytical thinking, and a strong work ethic, making significant contributions to all the projects she was involved in.

As part of her role, Jia Qi worked extensively on aircraft cabin interior development, focusing at first on the design and development of the aircraft lavatory. Her proficiency in engineering design through tools such as CATIA and CAD enabled her to produce high-quality technical drawings and models, ensuring precision and compliance with aerospace standards. Additionally, she also played a key role in designing an new aircraft seat rear cover, effectively addressing the issue of overextending armrests that had previously led to failures and faults. Her ability to identify problems, develop practical solutions, and refine designs was highly commendable.

Jia Qi consistently provided detailed updates of her work experience through fortnightly reflections and monthly back-to-school meetings, where she presented her progress with clarity and confidence. She demonstrated a deep understanding of engineering concepts and was able to articulate design considerations, project challenges and her own professional and personal development effectively.

Beyond her core engineering tasks, Jia Qi also contributed to a corporate social responsibility (CSR) project, where she took the initiative to develop a working prototype to assist wheelchair-bound individuals in wet weather conditions. This project showcased her ability to integrate technical expertise with user-centered design, demonstrating both creativity and a commitment to improving accessibility.

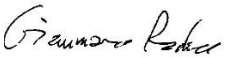
Her professionalism, adaptability, and problem-solving skills were evident throughout the internship. She approached every challenge with initiative, resourcefulness, and a strong sense of responsibility, while also collaborating effectively with her supervisors and peers. Her thorough documentation, structured approach to testing, and keen attention to detail ensured that her work met the highest engineering standards.

Based on the assessment and feedback from her work supervisor and her presentations, Jia Qi has proven herself to be a highly capable and motivated individual who will be a valuable asset to any organization. Her

technical expertise, problem-solving capabilities, and strong work ethic make her well-suited for engineering roles in design, testing, and certification. I strongly recommend Tho Jia Qi for the role of test services engineer, and I am confident that she will be an asset for your division and organisation.

Please feel free to contact me if you require further information.

Sincerely,



Dr Gianmarco Radice
Associate Professor

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Tho Jia Qi joined the project which involves designing a rain shelter for motorized wheelchair for Cerebral Palsy Alliance Singapore (CPAS) during her internship at ST Engineering Aerospace in 2024. As part of the project team, Jia Qi actively participated in the various meetings and discussions. She is proficient in the 3D CAD model creation and 3D printing. She took up the challenge to design the supporting tubular structures that mounting on the existing handles, the brackets that hold the structural parts in place and support the canopy.

Jia Qi has showed herself as an independent staff who can work with minimum guidance and supervision. She is also a responsible person who strives to complete her assigned tasks on time. During the prototyping stage, she is quick in making changes and improvement to the design as well as printing the 3D parts for fitment check.

With her pleasant personality, she is able to work well with the team-mates and has no problem in liaising with the manufacturing contractor. She has great potential to be a good design engineer.

Phua Swee Pheng
Head, Aircraft Engineering & ILS
Engineering Solutions

5 December 2024

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