

Chen Qi Jing

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Education

Nanyang Technological University (NTU), Singapore

School of Mechanical and Aerospace Engineering

Doctor of Philosophy in Robotics

Aug 2021 – Present

Research Focus: Robotic manipulation of deformable linear objects

Bachelor of Aerospace Engineering

Aug 2017 – Jun 2021

GPA: 4.9/5

Delft University of Technology (TU Delft), Netherlands

Aug 2019 – Feb 2020

Exchange Semester – Aerospace Engineering (as part of NTU B.Eng. program)

Temasek Junior College

Jan 2013 – Dec 2014

GCE 'A' levels Certificate

Work Experience

GE Aviation Engine Services Pte Ltd, Intern

Feb 2020 – Jun 2020

- Practical creation and analysis of 3D-printed compressor blade repair samples
- Collaborated with the Emerging Technologies team to validate Direct Metal Laser Melting for use in engine maintenance and repair
- Supported complementary repair technologies (e.g., Thermal Spray) to gain a broader understanding of the overall repair process
- Awarded the Certificate of Distinction by NTU for the Professional Internship

Republic of Singapore Air Force, Air Warfare Officer (C3)

Apr 2016 – Mar 2017

- Trained rigorously in numerous air traffic control positions
- Appointed Environmental Control Officer to maintain safe and compliant working conditions
- Contributed to airbase readiness by supporting operational continuity and squadron coordination

Awards and Achievements

Nanyang President Graduate Scholarship

May 2021 – Aug 2025

- Premier scholarship granted by NTU's President, recognizing PhD students who exemplify exceptional academic, research and leadership qualities
- Fully funded PhD scholarship at NTU focusing on Robotics, with emphasis on the manipulation of deformable linear objects

NTU Hall 13 Dance Team, Vice-Captain

Aug 2018 – May 2019

- Led a dance team to compete in the Annual Interhall Dance Competition 2019
- Conducted structured training sessions tailored for both beginner and advanced dancers

NTU MAE: Dean's List in Aerospace Engineering Programme

Sep 2018

- Awarded by the School of Mechanical and Aerospace Engineering based on excellent achievements in the respective programme

Advanced Certificate in Team Leadership

Mar 2016

- Completed intensive training in leadership and team dynamics at Officer Cadet School (OCS) during National Service in the RSAF

Temasek Junior College: Orientation Group Leader

Dec 2013 - Feb 2014

- Guided freshmen through orientation activities to foster engagement and integration
- Coordinated activities to ensure smooth execution of the overall programme

Research Interests and Publications

Research Interests: Motion planning and control, deformable linear object modeling and manipulation, optimization-based control, simulation, computer vision, reinforcement learning

Publications:

- **Q.J. Chen, T. Bretl, Q.-C. Pham** "*Accurate Simulation and Parameter Identification of Deformable Linear Objects using Discrete Elastic Rods in Generalized Coordinates.*" IROS 2025.
- **Q.J. Chen, S. Shan, Q.-C. Pham** "*Robotic Manipulation of a Rotating Chain with Bottom End Fixed.*" IROS 2025.

Skills and Other Interests

Written and Spoken Languages: English and Mandarin

Programming; Software Skills: Python, C++, MATLAB, Fortran; MuJoCo, Solidworks

Interests: Travel, Bouldering, Dance, Reading, and Movies