Zherun Li

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Education

Shanghai Jiao Tong University   Shanghai, China
M.S. major in Mechanical Engineering   2022-2025
Advisor: Associate Prof. Yang Zhang

- GPA: 3.52/4.0
- Major Courses: Computational Method, Matrix Theory, Sensors and Systems, Modern Control, Complex System Design and Practice, Computational Graphics
- Selected Honor
  1. Excellent Master Dissertation (5%)   (2025)
  2. Best Presentation in CNCM   (2024)
  3. Second Class Academic Scholarship   (2024)
  4. Second Class Academic Scholarship   (2023)
  5. Second Class Academic Scholarship   (2022)

Dalian Maritime University   Dalian, China
B.S. major in Mechanical Design & Manufacturing and Automation   2018-2022
Advisor: Associate Prof. Zhaogui Wang

- GPA: 87/100
- Major Courses: Principle of Mechanics, Mechanic Design, Mechanical Graphing, Mechanics of Materials, Theoretical Mechanics, Hydraulic Transmission, Basic Mechanic Engineering Control
- Selected Honor
  1. Second Class SMC scholarship   (2021)
  2. Third Class Merit Student   (2020)
  3. Second Class SMC scholarship   (2019)

Research Experience

Field Study

Path Planning Aiming at Surface Inspection   Shanghai Jiao Tong University, 2022-2025
- Five-axis sweep scanning path planning on geometrical complex surface
- Interference-free path planning for variable parts
- Adaptive sweeping path planning

Research Experience

Surface Inspection Work   Sino-British Center for Intelligent Inspection, Shanghai, 2023-2025
- Conducted inspection on a variety of parts including, blisk, aero-blade
- Proposed an algorithm for addressing the inspection slippage

Geometrical Computational Related Experience   Shanghai Jiao Tong University, 2022-2023
- Devised a simple algorithm for interference check in five-axis path planning
- Explored the potential of as-rigid-as-possible (ARAP) method in surface prediction

3D Printing Lab of ME College   Dalian Maritime University, 2022.2-2022.6

- Explored the effect of temperature to the mechanical quality of the printed parts and its surface quality
- Devised an experimental 3D printing machine with a fixed temperature controlling mode
- Tested the tensile strength of parts under different temperature condition

Internship

Intern for CV algorithm   Sophogo, Shanghai, 2024.07-2024.08

- Developing an auto-tuning algorithm for binocular fisheye cameras
- Participate in developing an auto-tuning algorithm for multi-vision cameras

Publications

1. **Z. Li**, Y. Shen, W. Zhang, N. Huang, L. Zhu, and Y. Zhang, 'Five-Axis Continuous Sweep Scanning for Curvature Variable Surfaces', IEEE Trans. Instrum. Meas., vol. 73, pp. 1–13, 2024, doi: 10.1109/TIM.2024.3485402.
2. **Z. Li**, Y. Shen, L. Zhu, Y. Zhang.: An Adaptive Five-Axis Sweep Scanning Path Planning Method for Variable Curvature Parts, ICIRA, 2025
3. Y. Shen, **Z. Li,** L. Zhang, N. Huang, L. Zhu, Y. Zhang.: Minimizing impeller setups in five-axis inspection with global accessibility map, **under review 2025**

Skills

Computer Skills: MATLAB, C++, Python, SolidWorks, ProE, PolyWorks
English Language Test: IELTS (7.5)