Jing Tao

Date of birth: January 1996   Ancestral home: Datong, Shanxi province

Cell phone: (86) 182-9194-7578   Email: totror@mail.nwpu.edu.cn

EDUCATION

School of Mechanical Engineering, Northwestern Polytechnical University (985)

September 2018~March 2021

- **Got Master Degree in Mechanical Engineering**
- Major: Mechanical Manufacture and Automation
- GPA 3.62/4 (Top 5%)

College of Mechanical Manufacture and Automation, Chang'an University (211)

September 2014~June 2018

- **Got Bachelor Degree in Mechanical Manufacture and Automation**
- Major: Mechanical Manufacture and Automation
- GPA 3.28/4 (Top 15%)

RESEARCH EXPERIENCE

- **Hong Kong Polytechnic University**

  June 2022~ January 2023

  Position: Research Associate

  Subject: Industrial big data-enabled smart maintenance technology for complex equipment

- **Northwestern Polytechnical University**

  March 2021~ March 2022

  Position: Research Associate

  Subject: Real-time maintenance strategies for complex machinery based on cloud manufacturing

RESEARCH INTERESTS

- Big data-driven predictive maintenance and decision-making
- Time Series Information Prediction
- Deep learning

PUBLICATIONS

- **Tao Jing,** Pai Zheng, Liqiao Xia, Tianyuan Liu (2022). Transformer-based Hierarchical Latent Space VAE for Interpretable Remaining Useful Life Prediction. Advanced Engineering Informatics (**Q1**, WOS:000895827700006 IF:7.862) Volume 54, October 2022, 101781. DOI: 10.1016/j.aei.2022.101781

- **Tao Jing**, Xitian Tian, Hao Hu, Liping Ma (2021). Deep Learning-Based Cloud–Edge Collaboration Framework for Remaining Useful Life Prediction of Machinery [J]. IEEE Transactions on Industrial Informatics, vol. 18, no. 10, pp. 7208-7218 (**Q1**, WOS: 000838389400073 IF:11.64) DOI: 10.1109/TII.2021.3138510

- **Tao Jing**，Xitian Tian，Xiang Liu，Hao Hu, Min Zhang, Bo Li (2020). A multiple alternative processes-based cost-tolerance optimal model for aircraft assembly [J]. The International Journal of Advanced Manufacturing Technology, 107:667-677. (**Q2**, WOS: 000516209700001，Q2，IF: 3.56) DOI: 10.1007/s00170-020-05020-7

- **Tao Jing**，Xitian Tian (2021) Monte Carlo-Adaptive differential evolution algorithm-based multi-objective optimization method for aircraft tolerance allocation [J]. Hangkong Xuebao/Acta Aeronautica et Astronautica Sinica, (EI) DOI:10.7527/S1000 6893.2021.25278

- Patent: A movable parallel drilling robot with six degrees of freedom. (CN209050749U)

RESEARCH PROJECTS

- *June 2022~ January 2023* **Role: Principal member**

  Industrial big data-enabled smart maintenance technology for complex equipment (MHX/001/20), Mainland Hong Kong Joint Funding Scheme (MHKJFS), by Innovation and Technology Commission (ITC), HKSAR & Ministry of Science and Technology (MOST) (Funding: HK$2600000)

- *March 2021~ March 2022* **Role: Sub-project Supervisor**

  Real-time maintenance strategies for complex machinery based on cloud manufacturing, Ministry of Industry and Information Technology project(Funding: ￥3000000)

- *June 2018~ March 2021* **Role: Sub-project Supervisor**

  Digital assembly system planning and process designing of a large passenger aircraft, Ministry of Industry and Information Technology project(Funding: ￥8600000)

INTERNSHIP EXPERIENCE

- *July 2020-September 2020*

  HUAWEI TECHNOLOGIES CO.LTD. - Hardware Engineering and Product Development Management Department

  Position: Structural and Materials Engineer

  Personal Responsibilities:

  ➢ Analyze the structure of wearable products, identify existing problems and propose solutions.

  ➢ Conduct reliability tests on R&D products, analyze the causes of products that fail the

reliability test, and propose reasonable solutions for evaluation.

Project Outcomes:

➢ Strengthen the analysis ability of product reliability test problems, and exercise the ability to communicate with suppliers.

- *July 2019-September 2019*

   The Aviation Industry Corporation of China, Ltd 172 Factory

   Personal Responsibilities:

   ➢ Analyze the hierarchical structure of the fuselage assembly process instruction, and visit the layout of the fuselage assembly production line.

HONOR AND AWARD

- *November 2015*   **Zhongjiaotongli Third-class Scholarship**
- *November 2016*   **Merit Student of Chang'an University**
- *November 2017*   **Merit Student of Chang'an University**
- *May 2017*   **Outstanding Youth Volunteer**
- *November 2020*   **Excellent Postgraduate of Northwestern Polytechnical University**
- *March 2021*   **Excellent Graduate of Northwestern Polytechnical University**

SPECIAL SKILLS

- Programming Skills: Python (Pytorch), Matlab
- Modelling Skills: AutoCAD, Solidworks, Teamcenter Vis Mockup, Tecnomatix Process Simulate.

ACADEMIC SERVICES

- Journal Reviewer: IEEE Transactions on Industrial Informatics, Advanced Engineering Informatics, Journal of Intelligent Manufacturing, etc.