

# Zikai Yin

## Curriculum Vitae

P.R.China

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## Education

- 2022–present **University of Groningen**,  
*Scientific Visualization and Computer Graphics*, PhD student supervised by Prof.dr.Jiří Kosinka and Dr.Steffen Frey.
- 2019–2022 **Northwestern Polytechnical University**,  
*Aeronautical Engineering*, Master, GPA – 3.57/4.0(Top 20%).  
MSc Thesis: Deep learning-based Adaptive Machining Process Model Construction for Composite Fan Blade
- 2015–2019 **Nanchang Hangkong University**,  
*Electronic Science and Engineering*, Bachelor, GPA – 3.48/4.0(Top 5%).  
BSc Thesis: The study on the Quick and Highly Precise Intellectual Detection System of PCB

## Research Experience

- 2019–2022 **Construction of Geometric Model of Near-net-shaped Blade's Adaptive Machining Process**,  
*Northwestern Polytechnical University*.
- Built a neural network to discriminate and classify the similarity of leading and trailing edges.
  - Developed object detection models for identification of leading and trailing edge's reconstruction areas.
  - Designed leading and trailing edge's adaptive machining model reconstruction algorithm.
- 2019–2021 **Trial Production of Composite Fan Blades**, *Northwestern Polytechnical University*.
- Responsible for algorithm design and software development.
  - Reconstructed spline curves with UG NX secondary development tools and C++.
  - Drew 3D model and 2D part plans of fixtures using UG and AutoCAD.

## Publications

- **Yin, Z.**, Liang, Y., Ren, J., et.al. "LETR: An End-to-End Detector of Reconstruction Area in Blades Adaptive Machining with Transformer". *Journal of Sensors*, vol. 2022, 2022. (SCI Q2, IF=2.137)
- **Yin, Z.**, Ren, J., Liang, Y. "Classification of blades leading edge based on neural networks in adaptive machining of near-net-shaped blade". *International Journal of Precision Engineering and Manufacturing*, vol. 22, pp. 1817-1828, 2021. (SCI Q2, IF=2.106)

## Awards & Honors

- 2022 **CSC-RUG PhD Scholarship**, *Chinese Scholarship Council and University of Groningen*.
- Overall 75 PhD students
- 2021 **The Second Scholarship of NPU**, *Northwestern Polytechnical University*.
- Ranked TOP 20% in the school.
- 2020 **The Second Scholarship of NPU**, *Northwestern Polytechnical University*.
- Ranked TOP 20% in the school.
- 2019 **The Second Scholarship of NPU**, *Northwestern Polytechnical University*.
- Ranked TOP 10% in the school.
- 2018 **The second Prize of Excellent Student**, *Nanchang Hangkong University*.
- Ranked TOP 15% in the school.

- 2018 **The Third Scholarship of Enterprise**, *Nanchang Hangkong Univeristy*.  
○ Ranked TOP 15% in the school.
- 2017 **The Third Scholarship of Enterprise**, *Nanchang Hangkong Univeristy*.  
○ Ranked TOP 15% in the school.
- 2016 **The Third Prize of Excellent Student**, *Nanchang Hangkong University*.  
○ Ranked TOP 15% in the school.

## Skills

Programme Python, C/C++, Matlab, LaTeX

Frameworks PyTorch, MMDetection

CAD Unigraphics NX, AutoCAD

Office Adobe Photoshop, MS Office Suite

Languages English(Proficient), Chinese(Mother Tongue), German(Fundamental)