Zisong Wang

Male | D.O.B.: 02/1997 | City: Beijing, China
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PROFILE

- Master in computer science and technology (Grade 2021).
- Research direction: the fault detection of moving parts of machine tools.
- Rigorous logical thinking, good at research and analysis, proficient in academic writing, solid mathematical skills, with a sense of teamwork and experience in organizing scientific research work.
- Master Python, linux, LaTeX, Pytorch, Familiar with the basic deep learning network structure.

EDUCATION

University of Chinese Academy of Sciences **09/2021-Current**
Master of Computer Science and Technology | GPA：3.43/4.00
Major courses: Computer Algorithm Design and Analysis, Computer Architecture, Graph Theory and Network Algorithm, Machine Learning, Deep Learning, Image Processing and Computer Vision, Visual Information Learning and Analysis, Reinforcement Learning, Medical Image Analysis, Deep Learning and Natural Language Processing, etc.

Jilin University **09/2016-06/2020**
Bachelor of Mathematics and Applied Mathematics
Major courses: mathematical analysis, advanced algebra, graph theory, abstract algebra, probability theory and other basic courses in mathematics.

RESEARCH

Thesis:
Research and Implementation of Machine Tool Moving Parts Fault Detection Method Based on Machine Vision

- Based on DexiNed, a new differential convolutional structure is introduced to improve the original edge detection index under the premise that the test set speed is almost unchanged.
- Add a channel attention module to the original network.

Topic Research:
2023.06 **Research and Application of Key Technologies for Real-time Fault Diagnosis of Intelligent Production Line of Industrial Internet of Things**. National Key R&D Program(2017YFE025300)

Patent:
2022.09 **202211568856.X. Method and device for detecting the edge of the surface guide rail steel plate protective cover**

- Based on VGG16, the network structure is modified and gradient information is introduced.
- Modify the loss function to the dice coefficient equation to obtain a refined image of the refined edges.

HONOR & AWARD

- 2022 "Huawei Cup" China Graduate Mathematical Modeling Competition National Second Prize - on the scientific management of daily necessities during the epidemic
- 2018 Mathematical Modeling Competition Provincial First Prize - Special Clothing Design for hot environment