

Jintao Jin

Contact Information

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EDUCATION

Master

[2020.09-2022.06]

Southern University of Science and Technology, Joint master programme with Shenzhen Institute of Advanced Technology(Chinese Academy of Sciences)

Bachelor(New energy materials and devices)

[2015.09-2019.06]

Southeast University, School of Electronic Science and Engineering

WORK EXPERIENCE

Software development engineer in test

[2022.07-now]

NVIDIA(Shanghai, China)

- develop CUDA math library test framework
- Debug CUDA math library bugs
- Automate tests for CUDA math library

RESEARCH EXPERIENCE

Mask recognition

[2020.10-2020.12]

- I cooperated with a visiting student to build a mask detection system based on YOLOv5 algorithm in this project, I trained and tuned the model. 1 EI conference paper were accepted.

PCB defect detection

[2021.01-2022.06]

- the project aims to detect the defects on printed circuit boards such as short circuit, open circuit. In this project, I proposed a method to preprocess the high resolution pictures that are captured by industrial camera, then using CNN combined with Transformer model with improved loss function and activation function to detect the defects. 2 EI conference papers are accepted.

- In this project, I applied a neural network coverage guided method to reduce fuzzy testing time for heuristic(neural network) in CUDA math libraries, the speed is 5 to 10 times faster than randomly generation methods. 1 paper is submitted to NTECH(an annual internal engineering event).

HONORS

Outstanding Student of Guangzhou Institute of Advanced Technology, Chinese Academy of Sciences [2021.01]

SKILLS

- **Language:** Chinese(native), English(IELTS: overall 6.5)
- **Professional Skills:** C++(good), Python(good), Pytorch(good), CUDA(Basic)
- **Misc:** Git, Linux, Docker, Cmake, LaTeX

PUBLICATIONS

- **Jin, J.**, Feng, W., Lei, Q., Gui, G., Li, X., Deng, Z., & Wang, W. (2021). Defect Detection of Printed Circuit Boards Using EfficientDet. 2021 IEEE 6th International Conference on Signal and Image Processing (ICSIP), 287–293. doi:10.1109/ICSIP52628.2021.9688801
- **Jin, J.**, Feng, W., Lei, Q., Gui, G., & Wang, W. (2021). PCB defect inspection via Deformable DETR. 2021 7th International Conference on Computer and Communications (ICCC), 646–651. doi:10.1109/ICCC54389.2021.9674579
- Yang, G., Feng, W., **Jin, J.**, Lei, Q., Li, X., Gui, G., & Wang, W. (2020). Face Mask Recognition System with YOLOV5 Based on Image Recognition. 2020 IEEE 6th International Conference on Computer and Communications (ICCC), 1398–1404. doi:10.1109/ICCC51575.2020.9345042
- Yang, G., **Jin, J.**, Lei, Q., Wang, Y., Zhou, J., Sun, Z., ... Wang, W. (2021). Garbage Classification System with YOLOV5 Based on Image Recognition. 2021 IEEE 6th International Conference on Signal and Image Processing (ICSIP), 11–18. doi:10.1109/ICSIP52628.2021.9688725
- Sun, Z., Feng, W., **Jin, J.**, Fu, Z., Yang, G., Lei, Q., ... Wang, W. (2021). Pet Companion System Based on Image Recognition. 2021 7th International Conference on Control, Automation and Robotics (ICCAR), 303–309. doi:10.1109/ICCAR52225.2021.9463

- Sun, Z., Feng, W., **Jin, J.**, Lei, Q., Gui, G., & Wang, W. (2021). Intelligent Fertilization System Based on Image Recognition. 2021 IEEE 6th International Conference on Computer and Communication Systems (ICCCS), 393–399. doi:10.1109/ICCCS52626.2021.9449154
- Yang, G., Liu, X., Zhong, O., Lei, O., Wu, Z., & **Jin, J.** (2021). A Vision-Based Fruit Packaging Robot. 2021 IEEE 6th International Conference on Computer and Communication Systems (ICCCS), 297–302. doi:10.1109/ICCCS52626.2021.9449154
- Liu, X., **Jin, J.**, Zhong, Q., Lei, Q., Wu, Z., & Fang, Z. (2021). Vision-Based Chess Detection for a Robotic Companion. 2021 IEEE 6th International Conference on Computer and Communication Systems (ICCCS), 248–253. doi:10.1109/ICCCS52626.2021.9449154
- Liu, J., Lei, Q., Qiao, Y., Gui, G., Li, X., **Jin, J.**, & Wang, W. (2020). A Visual Based Robot Trajectory Teaching Method for Traditional Chinese Medical Moxibustion Therapy. 2020 IEEE 6th International Conference on Computer and Communications (ICCC), 2356–2363. doi:10.1109/ICCC51575.2020.9345310