SHIFANG ZHAO

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EDUCATION

Master | ***Information and Communication Engineering*** Sep. 2023 – Now
Beijing Jiaotong University Beijing, China
Supervised by Prof. **Yunchao Wei**

Bachelor | ***Automation Engineering*** | **GPA:3.74/4** Sep. 2019 – Jul. 2023
Beijing University of Technology Beijing, China
Relevant Coursework: Signal and system, Digital Signal Processing, Data Structures and Algorithms, Control Theory

PUBULICATION

OmniAD: Detect and Understand Industrial Anomaly via Multimodal Reasoning (Under review)
S. Zhao, Y. Lin, L. Han, Y. Zhao, Y. Wei
NeurIPS

AlignGen: Boosting Personalized Image Generation with Cross-Modality Prior Alignment (Under review)
Y. Lin*, **S. Zhao***, T. Liu, X. Qu, L. Liu, Y. Zhao, Y. Wei
ACM International Conference on Multimedia

WIDE: Make Railway Surveillance Anomaly Detection Right (Under revision)
S. Zhao, C. Ma, S. Su, X. Meng, Y. Zhao, Y. Wei
IEEE Trans. Intell. Transp. Syst.

Rethinking Data Imbalance in Class Incremental Surgical Instrument Segmentation
S. Zhao, L. Bai, K. Yuan, F. Li, J. Yu, W. Dong, G. Wang, M. Islam, N. Padoy, N. Navab, H. Ren
Medical Image Analysis

PROJECTS AND RESEARCH

Automatic Ping-Pong Ball Collection Robot Design Aug. 2021 - Aug. 2022
Beijing University of Technology

- Led the development of an autonomous ping-pong ball collection robot, incorporating advanced target detection, path planning, and an innovative collection system using brushless motors and friction wheels.
- Designed and implemented a detection algorithm combining masking, Canny edge, and Hough circle techniques for rapid ball localization and efficient retrieval.

INTERN EXPERIENCE

Research Intern on Medical Image Analysis Fall 2024
Chinese University of Hong Kong Remote

HONORS AND AWARDS

The First Prize Scholarship 2020 | 2021 | 2023
Recognition for to 10% of students in academics at Beijing University of Technology

24th China Robot and Artificial Intelligence Competition National First Prize Aug. 2022
Project: Automatic Ping-Pong Ball Collection Robot Design

SKILLS

Languages: English (CET6), Japanese (N2)
Programming: Python(Torch, CV2), C(STM32, ROS)