# SHIFANG ZHAO

+86 158-0123-5683
shifang.zhao@bjtu.edu.cn
https://www.zhihu.com/people/zzz-99-64

## 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)