

JIALONG SUN

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EDUCATION

Beijing Jiaotong University (BJTU) Master Student in School of Computer Science and Technology Advisor: Yunchao Wei	Beijing, China Sep 2023 - Present
Beijing Jiaotong University (BJTU) B.S. in Computer Science and Technology	Beijing, China Sep 2019 - Jun 2023

RESEARCH INTERESTS

Computer Vision; Generative Modeling; Agentic RL

RESEARCH EXPERIENCE

Master Student	BJTU, Sep 2023 - Present
<ul style="list-style-type: none">• Generative Synthetic Data for Contraband Detection in Security Domain: We propose effective methods to synthesize X-ray security images using diffusion models. The method effectively reduces the manual collection and annotation cost, and improves detection performance on multiple security benchmarks.• Bridging Past, Present and Future of Incremental Object Detection via General Detector Knowledge Distillation: We leverage the general knowledge of Large Multimodal Models(e.g., Qwen-VL 2.5) to augment the performance of visual expert(e.g., DINO) under multi-phase incremental settings.	

PUBLICATION LIST

1. Jialong Sun, Hongguang Zhu, Weizhe Liu, Yunda Sun, Renshuai Tao, Yunchao Wei. Taming Generative Synthetic Data for X-ray Prohibited Item Detection, *IEEE Transactions on Multimedia* 2025 in submission. (Paper)

INDUSTRIAL EXPERIENCE

Application Intern	Baidu, Beijing, Jun 2025 - Sep 2025
<ul style="list-style-type: none">• Multimodal Intelligence for Vertical Domains: I trace latest multimodal models(e.g., GLM-4.1v) and apply them to many vertical domains(e.g., Luckin Coffee), including the construction of multimodal benchmarks, badcase analysis and prompt optimization.	
Research Intern	Nuctech, Beijing, Nov 2024 - May 2025
<ul style="list-style-type: none">• Generative Image Restoration for Complex Security Scenarios: I give solutions to recovering the color and texture details of low-quality X-ray security images through image-to-image translation by investigating the potential of generative models (e.g., CycleGAN, pix2pixHD and ControlNet).	

PROJECT EXPERIENCE

Generative Intelligence for X-ray	Jul 2025 - Present
I propose a three-stage training pipeline based on SDXL for realistic X-ray security image generation on five common X-ray benchmarks, including PIDray, HiXray, OPIXray, CLCXray and PIXray.	
Contraband Detection within 3D CT Security Imagery in Civil Aviation	Sep 2023 - Present
I am one of the contributors to the young scientist project of the <i>Ministry of Science and Technology</i> . I am involved in the following two parts: Intelligent Contraband Recognition Platform and Recognition Algorithm Design	

CORE QUALIFICATIONS

- **Programming:** Python, Pytorch
- **English:** TOEFL(88/120), CET4 (656), CET6 (575)

AWARDS AND HONORS

- Scholarship For Outstanding Students. BJTU. 2023 - 2024
- Outstanding Final Year Project. BJTU. 2023