

Chongyu Fan

Huazhong University of Science and Technology

☎ +86-18747290166 • ✉ chongyu.fan93@gmail.com

Education

Program	Institution/Board	%/GPA	Year
Robotics(Mechanical Design, Manufacturing and Automation)	Huazhong University of Science and Technology Wuhan, China	3.97/4	2020-2024(expected)

Publications

Research Experience

1. Saliency Unlearning (SalUn)

(Guide: Prof.Sijia Liu)

June 2023 - Sep 2023

OPTML, Michigan State University

- Identify two **limitations** of current Machine Unlearning techniques: lack of **stability** and **adaptability**.
- Introduce the concept of **Weight Saliency** in **Machine Unlearning** and develop **SalUn**.
- Perform comprehensive **experiments** to validate the effectiveness of **SalUn**.
- Use **SalUn** to prevent **Stable Diffusion** from generating harmful images.

2. Dynamic Recognition and Grasping

(Guide: Prof.Xingwei Zhao)

March 2023 - June 2023

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- Utilize **CoppeliaSim** for principle analysis and feasibility testing.
- Obtain **forward and inverse kinematics solutions** by **geometric method** and **DH parameters**.
- Deploy **YOLOv5** on the **robotic arm** with the **binocular camera** to **measure distance** and **grasp object**.

3. Weakly Supervised Object Detection

(Guide: Prof.Xinggong Wang)

May 2022 - April 2023

HUST Vision Lab

- Use **CAM** to get high quality **pseudo ground truth**.
- Add **semantic information** into Weakly Supervised Object Detection.
- Calculate the **similarity** between **image** and **image level label** pixel by pixel to guide the training.
- Research on the application of **large-scale pre-trained models**, such as **CLIP**, in Weakly Supervised Object Detection.

Key Projects

1. Video understanding technology based on lipreading

(Guide: Prof. Wang Ran)

March 2022 - March 2023

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- **National** College Student Innovation and Entrepreneurship Training Program.
- Use **face detect**, **face track** and **face landmark detect** to get the **proper RoI**.
- Use **Tadaconv** to reduce the whole training time.
- Our **technology** has been put into use at the **Wuhan School for the Deaf** to help them speak out.

Technical Skills

- Web Technology: html, js, css
- Operating System: Windows, Linux
- Programming Language: C, C++, Python, Matlab
- Tools: Latex, Anaconda, Abode Dreamweaver, Microsoft Office