

陈帅行

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EDUCATION

上海交通大学，上海

June 2021 - June 2025 (expected)

B.S. in Electrical Engineering (EE), School of Electronic Engineering & Electrical Engineering (SEIEE)

Minor in Business Administration, Antai College of Economics & Management

Overall GPA: 3.4

RESEARCH

主动目标跟踪

June 2022 - August 2023 (expected)

Computer Vision, **Video Tracking**, PRP

Prof. Yu Qiao

- Research on active target tracking models and frameworks.
- Built a UE4-based platform for testing active target tracking algorithms.
- Mainly using **ViT & GAN** architecture.
- Currently research on **anti-tracking** and **adversarial video tracking**.

自动驾驶中的小目标检测和识别

Marh 2023 - Present

Computer Vision, **Detection & Autopilot**, 大创

Prof. Manhua Liu

- Research on small object detection and segmentation in autonomous driving.
- Research based on **ViT & Yolo** architecture.
- Currently research on multi-scale **self-supervised visual learning** based on **MIM & DINO**.

基于扩散模型的图像生成与编辑系统

May 2023 - Present

Computer Vision, **AIGC**, 校企大创

Prof. Yichao Yan

- Research on the image generation effect and style transfer of **Diffusion Model**.
- Currently research on **video content generation & transformation** based on diffusion models.

SJTU 物联网实验室

June 2022 - June 2023

Electronic Engineering, *Internet of Things*

Prof. Xiaohua Tian

- Participated in SD-PHY (**Backscatter Communication Optimization** Project).
- Participated in the design of circuit drawings and simulation of SD-PHY.
- Participated in **Tiny-SDR (Ultra-low Power Intelligent Software Radio)**.
- Completed the project architecture design, schematic drawing and firmware code writing of Tiny-SDR.

智能物联网超低功耗节点设计与开发

Sep 2022 - June 2023

Electronic Engineering, *Internet of Things*, 大创

Prof. Xiaohua Tian, Dr.Fengyuan Zhu

- Researched on the architectural design of the **Ultra-low Power SDR**.

- Mainly using **LoRa communication protocol** and Tiny-SDR for OTA (over-the-air) remote firmware updates.
- Participated in and completed the initial design, schematic wiring and simulation of the project.

EXPERIENCE

Sophx 知识图谱项目

August 2022 - March 2023

Web Designer & Prototype Developer, 网络信息中心

网络信息中心, Prof. Lei Xing

- Worked independently on the **prototype development** of the project SOPHX (**Knowledge Graph Project**).
- Mainly using **MySQL, ECharts, PHP & JavaScript** for the prototype design.
- Completed the pre-show work of the project and the presentation of the knowledge map
- Participated in the design of the course **knowledge structure issues**.
- This project is still in the internal testing phase and will be eventually showcased soon at <https://sophx.sjtu.edu.cn/>

工程实践与科技创新 I (EE1503)

May 2023

Teaching Assistant, SEIEE 电气系

Dr. Wenjuan Xu

- Participated in temporary course teaching assistant work.
- Mainly to help students understand the structure of the task circuit board and to solve any issues that arose during the soldering process.

STRENGTHS & INTERESTS

I have experienced in both **Internet of Things (IoT)** and **Computer Vision (CV)** research directions, but currently I am **more interested in CV**.

I am familiar with the following **languages, architectures, and tools**.

Computer Languages	Python, C++, JavaScript
Architectures	CNN, ViT, MIM, DINO, Diffusion Model
Tools	MySQL, ECharts

My **Current Interests** include:

- **Multi-scale** visual detection based on **Self-Supervised Learning**.
- AI-based techniques for **Video Generation** and **Image Editing**. (**AIGC** for Videos and Images)
- **Object Tracking** and **Anti-Tracking**.