Shengkun Tang

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Research Interests

Efficient AI, Multi-Modal Learning, 3D Computer Vision

Education

Wuhan University Wuhan,Hubei

School of Remote Sensing and Information Engineering
Bachelor 9. 2018 – 6. 2022
Mentor： Professor Jian Yao

Publications

DDR-Net: Learning Multi-Stage Multi-View Stereo With Dynamic Depth Range
Puyuan Yi*, Shengkun Tang*, Jian Yao.
Arxiv

Scale-Robust Deep-Supervision Network for Mapping Building Footprints from High-Resolution Remote Sensing Images
Haonan Guo, Xin Su, Shengkun Tang, Bo Du, Liangpei Zhang
IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing

Research Experience

Research on Multi-View Stereo in Computer Vision and Remote Sensing Laboratory (CVRS Lab)
Mentor: Professor Jian Yao (Wuhan University) 6. 2020 – Now
In CVRS Lab, I mainly worked on 3D reconstruction, specifically, multi-view stereo (MVS). Dynamic Depth Range Network (DDR-Net) was proposed and archieved SOTA peroformance on standard dataset. In this work, I wrote code and did most of the experiments. I still wrote the paper and modified it for several times.

Synthetic Aperture Radar (SAR) Object Detection and Standard Dataset Construction
Mentor: Professor Xin Su （Wuhan University) 9. 2019 – 9.2021
I was the leader of this project. The major task was dataset construction and proposing new model for SAR images which are completely different from optical images. I had labeled most of the high resolution SAR images which are hard to image interpretation by eyes. New model targeted on tiny object detection in SAR images.

Internship Experience

Internship in SenseTime as A Vision Algorithm Engineer 6.2021 – 10.2021

During the internship in Sensetime, I was responsible for two major projects: Chess Robot and Baby Monitor. This was my first time to get in touch with the deployment of deep learning algorithm. We need to utilize Python to train and evaluate our model, and then, we implemented the whole projects in C++ and deploy the algorithm to the specific platform called RockChips.

Contests Experience

Baidu Astar Developer Competition 2020

Ranking: 7/2305(teams)

The task of Baidu Astar 2020 is traffic signs and surveillance cameras detection and matching. I was in charge of detection task. I solved the problems of data imbalance by using my own data argumentation strategy and detect surveillance cameras more accurately. We got into the final and rank 7 out of 2305 teams.

Awards

National Endeavor Fellowship 2019

Outstanding student scholarship 2019

Skills

Programming

Python, C/C++, Pytorch, PaddlePaddle, Matlab.

OS: Windows and Linu.

Language

Chinese (Mother tongue), English (Working language)