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Chang Di
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Python
Matlab
Latex
C
Javascript

Education Background

Technical University of Munich 2021.10 – Present

Bachelor of Science Informatics
Advised by: M.Sc Aljaž Božic and Prof.Matthias Niessner

- Cumulative GPA : 1.4/1.0

Dalian University of Technology 2018.9 – 2021.6

B.Eng Electronic and Information Engineering, Expected to graduate in 2022.9

- Cumulative GPA : 91.5/100 3.93/4.0 || Major GPA : 93.2/100 3.95/4.0
- Ranking : 1/204 Top 1 %

Publication

Di Chang, Aljaž Božic, Tong Zhang, Qingsong Yan, Yingcong Chen, Sabine Süsstrunk and Matthias Nießner* "*RC-MVSNet: Unsupervised Multi-View Stereo with Neural Rendering*" Arxiv Preprint(Under Review), 2022

Zhenxing Mi, **Di Chang** and Dan Xu* "*Generalized Binary Search Network for Highly-Efficient Multi-View Stereo*" IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2022

Research Experience

Image Visual Representation Lab at EPFL 2022.1 – Present

Summer@EPFL Intern Advisor: Dr.Tong Zhang and Prof.Sabine Süsstrunk

Ongoing Project: Self-supervised single view reconstruction

- Further improve the generalization of NeRF.
- Self-supervised single view 3D reconstruction in the wild.

Visual Computing and Artificial Intelligence Lab at TUM 2021.9 – 2022.3

Guided Research Advisor: M.Sc Aljaž Božic Examiner: Prof.Matthias Niessner

Completed Project: Unsupervised Multi-View-Stereo for 3D reconstruction

- To solve the incompleteness caused by occlusion from different viewing directions, we involve depth rendering consistency loss to learn the geometry feature close to the object surface.
- To alleviate the ambiguous supervision from photometric consistency, we use reference view synthesis loss to generate consistent supervision. 、
- To further improve the robustness to different depth ranges, we propose Gaussian-Uniform mixture sampling.
- This work is under review at ECCV2022

Multimeidia Lab(MMLab) at HKUST
Department of Computer Science and Engineering 2021.3 – 2021.11

Reasearch Assistant Supervisor: Prof.Dan Xu

Completed Project: Multi-View-Stereo Depth Estimation with Quadratic Search

- We introduced quadratic search and self-pacing learning strategy in MVS Depth Estimation
- The proposed method model achieved state-of-art result in the DTU and Tankantemples Dataset without pretraining
- We design and successfully train a generalized binary search network with a padding operation and masked training.
- This work is accepted by CVPR2022

Intelligent Image Analysis and Understanding Lab(IIAU-Lab)
School of Information and Communication Engineering 2020.1 – Present

Research Assistant Director: Prof.Huchuan Lu

IIAU Project:National Underwater Robot Professional Contest 2021.3 – 2021.6

Leader Supervisor: Prof.Dong Wang
(IIAU-Lab Professor,Vice Dean of School of Information and Communication Engineering)

National competition jointly held by NSFC, Pengcheng laboratory and Zhanjiang Municipal government.

- Using CascadeRCNN+ResNext101+FPN as the basic framework with the Deformable Convolutional Network and Self-Attention Block instead of the common CNN
- Applying Mosaic,RandomRotate90°,etc. data augumentation technology to reduce network overfitting and improve model generalization ability
- Making improvement to the FPN and introducing global context and non-local information

Final Result: Optical Track B List: Map 56.35 Rank: 18/1058

Acoustic Track B List: Map 54.33 Rank: 9/490

Technical Report: "*CDNet is all you need, cascade dcn based underwater object detection rcnn*"

Di Chang Yifan Wang and Dong Wang, Heywhale National Underwater Robot Professional Contest April 30-May 27, 2021, Zhanjiang, China.

Note:This project is recognized by National Natural Foundation and deployed in the codebase of Pengcheng Laboratory to further contribute to the field of underwater image processing.

Internship Experience

Computer Vision Researcher 2021.4 – 2021.7

Part-time Intern Hikvision,Vision&Graphic DUT-Hikvision Joint Lab

In charge of three sub-projects and algorithm deployment

- Optimize the current open-sourced State-of-art YoloV5m Network Struture(Speed part) and apply it to the working project.
- Training the fresh-graduate interns at the company and offer necessary assistance.

Software Development Engineer 2020.6 – 2020.8

Full-time Dalian Haosen Enterprise Smart Data,Technical Department

Provide form design and other page production for the company's web page, and make adjustments with the back-end interface

- Front-end web page constructing and designing the company's database system.(Framework:React)
- Participating in the development and design of new IOS applications

Programming Skills

- Programming Language: Python == Matlab > Latex > Javascript == C
- Platform: Linux(Ubuntu,CentOS),Windows,MacOS
- Framework: Keras(TensorFlow),PyTorch,Jittor

♡ Honors and awards

DUT Outstanding Undergraduate Scholarship	2021
DUT Innovation and Technology Scholarship	2021
DAAD Scholarship for TUMexchange students	2021
HKUST Summer Research Fellowship for visiting intern	2021
ICM/MCM,*Honourable Mention*	2021
National Underwater Robot Object Detection Competition,Optical Track *Finalist*	2021
National Underwater Robot Object Detection Competition,Acoustic Track *Third Prize*	2021
China National Scholarship	2020
DUT Outstanding Undergraduate Scholarship	2020
China Undergraduate Mathematical Contest in Modeling,*Second Prize*	2020
Dalian University of Technology AI Challenge,Object Detection,*Second Place in the university*	2020
DUT Outstanding Undergraduate Scholarship	2019
DUT NOK-Enterprise Scholarship	2019
34th National Olympiad in Physics (34th NOP) ,*First Prize in Liaoning Province,Rank:18*	2017

Teaching

Tutor - *IN2346 Introduction to Deep Learning*	2021 Winter
Hiwi - *IN2346 Introduction to Deep Learning*	2021 Winter

i Language ability

- English – C2: IELTS 8.0 (8.0/9.0/7.5/7.0)
- German – B2: TestDaf 14/20 (4/4/3/3)