Changshuo Wang

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Education

09/2018-07/2023	University of Chinese Academy of Sciences, Circuits and Systems	Ph.D. Canditate
09/2014-06/2018	Qingdao University of Science and Technology Electronic Information Science and Technology	Bachelor

About Me

I will graduate from the University of Chinese Academy of Sciences (UCAS) and the Institute of Semiconductors, Chinese Academy of Sciences, at the end of June 2023. My research interests are **2D/3D Scene Representation, generation and Understanding, Person Re-identification and Virtual Try-on**.

I am actively seeking a postdoctoral position in the field of 2D/3D computer vision and hope to pursue the following research in the future: (1) Design and development of 2D/3D scene reconstruction and understanding algorithms based on **images/lidar point clouds**, mainly applied in the areas of autonomous driving, robotics, remote sensing, and AR/VR; (2) Research on deep learning-based brain-inspired visual cognition algorithm design.

Honors

1. Outstanding graduate of Beijing	2023
2. Outstanding graduate of University of Chinese Academy of Sciences	2023
3. Director Scholarship from Institute of Semiconductors, Chinese Academy of Sciences	2023
4. National scholarship from University of Chinese Academy of Sciences	2022
5. Merit Student from University of Chinese Academy of Sciences	2020＆2021＆2022
6. Best Service Award from HPBD&IS 2019	2019
7. Outstanding Graduates of Shandong Province, China	2018
8. Honourable Metion of MCM/ICM, USA	2017
9. Second Prize in the 13th “Huawei Cup” National Graduate Mathematical Contest in Modeling	2016
10. First Prize in the 8th China College Students' Mathematics Competition (Non-Mathematics Major Group)	2016
11. First Prize in the Shandong Provincial Electronic Design Contest	2016
12. National Encouragement scholarship from Qingdao University of Science and Technology	2015＆2016＆2017

Project Experience

07/2022- 12/2022	Research and implementation of 2D virtual try-on in real environment	Main Participant
12/2021- 12/2022	Research on person re-identification based on 3D point cloud	Main Participant
10/2020- 11/2021	3D point cloud understanding based on deep learning	Main Participant
08/2019-09/2020	Research on Topological Feature Extraction Method Based on Brain Inspiration	Main Participant

Publications

1. **Changshuo Wang**, Xin Ning, Linjun Sun, Liping Zhang, Weijun Li, Xiao Bai. Learning Discriminative Features by Covering Local Geometric Space for Point Cloud Analysis, ***IEEE Transactions on Geoscience and Remote Sensing***, 2022. (JCR Q1, IF：8.125, Highly Cited Paper)

2. **Changshuo Wang**, Han Wang, Xin Ning, Shengwei Tian, Weijun Li. 3D Point Cloud Classification Method Based on Dynamic Coverage of Local Area, ***Journal of Software***, 2022. (CCF A)
3. **Changshuo Wang**, Chen Wang, Weijun Li. A Brief Survey on RGB-D Semantic Segmentation Using Deep Learning, ***Displays***, vol. 70, 2021. (JCR Q2, IF:3.074)
4. Huang Zhang, ChangShuO wang† , Jianchu Lin, Baoli Lu, Liping Zhang, Shengwei Tian. Deep Learning-based 3D Point Cloud Classification: A Systematic Survey and Outlook, ***Displays***. (JCR Q2, IF:3.074, joint first author)
5. Enhao Ning, Canlong Zhang, **Changshuo Wang**, Xin Ning, Hao Chen, Xiao Bai. Pedestrian Re-ID based on Feature Consistency and Contrast Enhancement, ***Displays***. (JCR Q2, IF:3.074)
6. **Changshuo Wang**, Xin Ning, Luyang Hou, Liping Zhang, Weijun Li, Yizhang Jiang. Brain-inspired Topological Set Network with Mixed Entropy and Attention for Topological Feature, ***IEEE Transactions on Systems, Man, and Cybernetics: Systems***, 2022. (3nd under review, JCR Q1, IF:11.471)
7. **Changshuo Wang**, Xin Ning, Weijun Li, Lusi Li, Xingyu Gao. 3D Person Re-identification Based on Global Semantic Guidance and Local Feature Aggregation, ***IEEE Transactions on Circuits and Systems for Video Technology***. (1st under review, JCR Q1, IF:5.859)
8. **Changshuo Wang**, Xin Ning, Weijun Li, Xingyu Gao. Learning 3D Geometric Structures from Point Clouds for Person Re-identification. ***IEEE Transactions on Pattern Analysis and Machine Intelligence***. (1st under review, JCR Q1, IF:24.314)
9. Enhao Ning, ChangShuO wang† , Huang Zhang, Xin Ning, Prayag Tiwari. Occluded Person Re-ID with Deep Learning: A Survey and Perspectives. ***Knowledge-Based Systems.*** (1st under review, JCR Q1,IF:8. 139, joint first author)
10. Zaiyang Yu, Xing Ning, Liping Zhang, **Changshuo Wang**. MV-TransReID: 3D Multi-View Transformer Network for Occluded Person Re-Identification. ***ACM MM*** 2023. (Under review)

Patents

1. Xin Ning, **Changshuo Wang**, Xiaoli Dong, Weijun Li, Liping Zhang, Linjun Sun. Point cloud semantic segmentation method, device, electronic equipment and storage medium. Invention patent. Patent number: CN202210220298.1. (First Participant)
2. Xin Ning, Shaolin Zhang, **Changshuo Wang**, Xiaoli Dong, Weijun Li. Image recognition model training method, image recognition method, and device. Patent for Invention. Patent number: CN112183559B. (First Participant)

Fund application

1. 2022 National Natural Science Foundation of China — Main Participant
2. 2023 National Natural Science Foundation of China — Main Participant

Mentoring experience

I have guided the research work of some students, including those from the University of Ottawa, Beijing University of Chemical Technology, Xinjiang University, South China Normal University, Guangxi Normal University, etc.

Corporate Internship experience

Wave Group . Beijing R&D Center — AI algorithm engineer — Jul. 2022-Dec.2022

- Algorithm Research and Application of 2D Virtual Try-On

Academic Services

- **Journal Reviewer:** IET Computer Vision、Displays、 Computational Intelligence and Neuroscience 、Concurrency and Computation: Practice and Experience(CCPE)、Applied Intelligence
- **Conference Reviewer:** HPBD&IS2019-2021、HDIS2022

Personal Blog/Github

- **CNBlog:**https://www.cnblogs.com/wangchangshuo
- **Github:**https://github.com/changshuowang