

Zhedong Zheng

Personal Webpage: <http://zdzheng.xyz> • [Google Scholar](#) • [Research Gate](#)

Email: zdzheng12@gmail.com • Date of Birth: 12 Oct 1993

Academic Qualifications

| | |
|-------------|--|
| 2017 - 2021 | Ph.D. in Computer Science, University of Technology Sydney (Advisor: Prof. Yi Yang) |
| 2012 - 2016 | B.S. in Computer Science, Fudan University (Advisor: Prof. Xiangyang Xue) |

Work Experience

| | |
|----------------|---|
| 2021 - Present | Research Fellow, NExT++ Lab, National University of Singapore (Advisor: Prof. Tat-seng Chua) |
| 2022 - Present | Adjunct Scientist at Sea AI Lab, Singapore |
| 2020 | Remote Research Intern, Baidu Research, China |
| 2018 | Research Intern, Nvidia Research, USA |

Awards & Competitions

Awards

| | |
|-------------|---|
| 2021 | IEEE Circuits and Systems Society Outstanding Young Author Award (1 recipient world-wide) [Link] |
| 2021 | Zhejiang Lab's International Talent Fund for Young Professionals |
| 2021 | Outstanding Ph.D. Thesis on the Chancellor's List |
| 2020 | UTS Vice-Chancellor's Conference Fund |
| 2020 | UTS AAIL Student Best Paper Award |
| 2020 | IEEE ICME Outstanding Reviewer Award |
| 2013 - 2016 | Four-time First-class Scholarship at Fudan University |
| 2013 | EMC Corp. Scholarship |

Competitions

| | |
|---|-----------|
| AICity Challenge: Language-based Vehicle Retrieval Challenge, Rank 1st / 15 teams | CVPR 2021 |
| AICity Challenge: Vehicle Re-identification Challenge, Rank 2nd / 51 teams | CVPR 2021 |
| Evoked Expressions from Videos (EEV) Challenge, Rank 2nd / 11 teams | CVPR 2021 |
| AICity Challenge: Vehicle Re-identification Challenge, Rank 1st / 64 teams | CVPR 2020 |
| AICity Challenge: Vehicle Re-identification Challenge, Rank 4th / 84 teams | CVPR 2019 |
| VisDA: Semi-Supervised Domain Adaptation Challenge, Rank 4th / 57 teams | ICCV 2019 |
| US Patent Application: Image identification using neural networks 16357047 | |

Professional Services

| | |
|---------------|---|
| Session Chair | Responsible, Responsive, and Robust Multimedia Retrieval, ICME 2022 |
| Senior PC | IJCAI 2021 |
| Reviewer | TPAMI, IJCV, TIP, TMM, TCSVT, CVPR, ICCV, ECCV, and ACM Multimedia |

Selected Talk

| | |
|--|---------------------|
| Keynote speaker at AICity Challenge @ CVPR 2020 and CVPR 2021 | |
| Tutorial speaker at Multimedia Content Understanding in Harsh Environments @ ACM MM 2022 | |
| 2021.08: Data. Data! How to deal with Data Scarcity? | Fudan University |
| 2021.07: Scene Understanding from Aerial View. | Zhejiang University |

2021.01: Visual Matching: From Re-identification to Geo-localization.

Fudan University

2020.12: Image Generation for Robust Image Retrieval.

Alibaba Inc.

2020.11: A Multi-view Multi-source Benchmark for Drone-based Geo-localization. [\[Link\]](#)

UTS

Research Interests

Computer Vision and Machine Learning

Multi-view Object Matching, Novel View Synthesis and Analysis

Publications

Summary. As of 19 Sept 2022, 27 papers have been published in top venues such as IJCV, TIP, TMM, CVPR, ICCV, and ECCV. 5 papers are selected as ESI Highly Cited Paper. Google Scholar Citations = **6,208**, H-index = **18**.

Refereed Journals

1. Adaptive Boosting for Domain Adaptation: Towards Robust Predictions in Scene Segmentation. IEEE Transactions on Image Processing (**TIP**), 2022.

Zhedong Zheng, Yi Yang

2. Rectifying Pseudo Label Learning via Uncertainty Estimation for Domain Adaptive Semantic Segmentation.

International Journal of Computer Vision (**IJCV**), 2021.

Zhedong Zheng, Yi Yang

3. VehicleNet: Learning Robust Visual Representation for Vehicle Re-identification.

IEEE Transactions on Multimedia (**TMM**), 2020.

Zhedong Zheng, Tao Ruan, Yunchao Wei, Yi Yang, Tao Mei

4. Dual-Path Convolutional Image-Text Embedding with Instance Loss.

ACM Transactions on Multimedia Computing, Communications, and Applications (**TOMM**), 2020.

Zhedong Zheng, Liang Zheng, Michael Garrett, Yi Yang, Mingliang Xu, Yi-Dong Shen

5. Pedestrian Alignment Network for Large-scale Person Re-identification.

IEEE Transactions on Circuits and Systems for Video Technology (**TCSVT**), 2019.

Zhedong Zheng, Liang Zheng, Yi Yang (**ESI Highly Cited Paper, Cited by 400+ times**)

6. A Discriminatively Learned CNN Embedding for Person Re-identification.

ACM Transactions on Multimedia Computing, Communications, and Applications (**TOMM**), 2018.

Zhedong Zheng, Liang Zheng, Yi Yang (**ESI Highly Cited Paper, Cited by 700+ times**)

7. Point Cloud Pre-training by Mixing and Disentangling.

IEEE Transactions on Multimedia (**TMM**), 2022.

Chao Sun, **Zhedong Zheng***, Xiaohan Wang, Mingliang Xu, Yi Yang (*: Corresponding Author)

8. Multi-pseudo Regularized Label for Generated Samples in Person Re-Identification.

IEEE Transactions on Image Processing (**TIP**), 2018.

Yan Huang, Jinsong Xu, Qiang Wu, **Zhedong Zheng**, Zhaoxiang Zhang, Jian Zhang

9. Camstyle: A Novel Data Augmentation Method for Person Re-identification.

IEEE Transactions on Image Processing (**TIP**), 2018.

Zhun Zhong, Liang Zheng, **Zhedong Zheng**, Shaozi Li, Yi Yang (**ESI Highly Cited Paper, Cited by 500+ times**)

10. Bayesian Query Expansion for Multi-camera Person Re-identification.

Pattern Recognition Letters, 2018.

Yutian Lin, **Zhedong Zheng**, Hong Zhang, Chenqiang Gao, Yi Yang

11. Improving Person Re-identification by Attribute and Identity Learning.
Pattern Recognition (**PR**), 2019.
Yutian Lin, Liang Zheng, **Zhedong Zheng**, Yu Wu, Zhilan Hu, Chenggang Yan, Yi Yang (**ESI Highly Cited Paper, Cited by 600+ times**)
12. Thorax Disease Classification with Attention Guided Convolutional Neural Network.
Pattern Recognition Letters, 2020.
Qingji Guan, Yaping Huang, Zhun Zhong, **Zhedong Zheng**, Liang Zheng, Yi Yang
13. Unsupervised Eyeglasses Removal in the Wild.
IEEE Transactions on Cybernetics (**TCYB**), 2020.
Bingwen Hu, **Zhedong Zheng**, Ping Liu, Wankou Yang, Mingwu Ren
14. Each Part Matters: Local Patterns Facilitate Cross-view Geo-localization.
IEEE Transactions on Circuits and Systems for Video Technology (**TCSVT**), 2021.
Tingyu Wang, **Zhedong Zheng**, Chenggang Yan, Jiyong Zhang, Yaoqi Sun, Bolun Zheng, Yi Yang (**ESI Highly Cited Paper**)
15. Soft Person Re-identification Network Pruning via Block-wise Adjacent Filter Decaying.
IEEE Transactions on Cybernetics (**TCYB**), 2021.
Xiaodong Wang, **Zhedong Zheng**, Yang He, Fei Yan, Zhiqiang Zeng, Yi Yang
16. SPG-VTON: Semantic Prediction Guidance for Multi-pose Virtual Try-on.
IEEE Transactions on Multimedia (**TMM**), 2022.
Bingwen Hu, Ping Liu, **Zhedong Zheng**, Mingwu Ren
17. Joint Representation Learning and Keypoint Detection for Cross-view Geo-localization.
IEEE Transactions on Image Processing (**TIP**), 2022.
Jinliang Lin, **Zhedong Zheng**, Zhun Zhong, Zhiming Luo, Shaozi Li, Yi Yang, Nicu Sebe
18. Heterogeneous Feature Alignment and Fusion in Cross-modal Augmented Space for Composed Image Retrieval
IEEE Transactions on Multimedia (**TMM**), 2022.
Xiaohan Wang, Linchao Zhu, **Zhedong Zheng**, Mingliang Xu, Yi Yang

Refereed Conferences

1. Unlabeled Samples Generated by GAN Improve the Person Re-identification Baseline in vitro.
IEEE International Conference on Computer Vision (**ICCV**), 2017. (Spotlight)
Zhedong Zheng, Liang Zheng, Yi Yang (**Cited by 1500+ times**)
2. Joint Discriminative and Generative Learning for Person Re-identification.
IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), 2019. (Oral)
Zhedong Zheng, Xiaodong Yang, Zhiding Yu, Liang Zheng, Yi Yang, Jan Kautz (**Cited by 500+ times**)
3. University-1652: A Multi-view Multi-source Benchmark for Drone-based Geo-localization.
ACM Multimedia (**ACM MM**), 2020.
Zhedong Zheng, Yunchao Wei, Yi Yang
4. Unsupervised Scene Adaptation with Memory Regularization in vivo.
International Joint Conference on Artificial Intelligence (**IJCAI**), 2020.
Zhedong Zheng, Yi Yang
5. Macro-Micro Adversarial Network for Human Parsing.
European Conference on Computer Vision (**ECCV**), 2018.

Yawei Luo, **Zhedong Zheng**, Liang Zheng, Tao Guan, Junqing Yu, Yi Yang

6. Camera Style Adaptation for Person Re-identification.

IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), 2018.

Zhun Zhong, Liang Zheng, **Zhedong Zheng**, Shaozi Li, Yi Yang

7. Real-World Automatic Makeup via Identity Preservation Makeup Net.

International Joint Conference on Artificial Intelligence (**IJCAI**), 2020.

Zhikun Huang, **Zhedong Zheng**, Chenggang Yan, Hongtao Xie, Yaoqi Sun, Jianzhong Wang, Jiyong Zhang

8. Decoupled and Memory-Reinforced Networks: Towards Effective Feature Learning for One-Step Person Search.

The AAAI Conference on Artificial Intelligence (**AAAI**), 2021.

Chuchu Han, **Zhedong Zheng**, Changxin Gao, Nong Sang, Yi Yang

9. Multi-View Consistent Generative Adversarial Networks for 3D-aware Image Synthesis

IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), 2022.

Xuanmeng Zhang, **Zhedong Zheng**, Daiheng Gao, Bang Zhang, Pan Pan, Yi Yang

Preprint Papers

1. Query Attack via Opposite-Direction Feature: Towards Robust Image Retrieval.

Zhedong Zheng, Liang Zheng, Yi Yang, Fei Wu

2. Parameter-Efficient Person Re-identification in the 3D Space.

Zhedong Zheng, Yi Yang

3. 3D Magic Mirror: Clothing Reconstruction from a Single Image via a Causal Perspective.

Zhedong Zheng, Jiayin Zhu, Wei Ji, Yi Yang, Tat-Seng Chua

Open Source

Codes and models for my published papers are available on my GitHub: <https://github.com/layumi> (7,000 stars and 1,700 followers)