

Zhihe Lu

🌐 <https://zhihelu.github.io/>

✉ zhihelu.academic@gmail.com

EDUCATION

CVSSP, University of Surrey (Top 1 on Computer Vision in UK)
Doctoral Degree in Computer Vision

Supervisor: Prof. Tao Xiang
2019.07 - 2022.09

Institute of Automation, Chinese Academy of Sciences (CASIA)
Master Degree in Computer Vision

Supervisor: Prof. Ran He
2016.09 - 2019.06

College of Electrical Engineering, Zhengzhou University
Bachelor of Engineering, Automation

2010.09 - 2014.06

WORKING EXPERIENCES

2025.01 - Now: Assistant Professor at Hamad Bin Khalifa University (HBKU), Qatar.

2022.09 - 2024.09: Research Fellow at National University of Singapore, Singapore. Work on CARTIN project (grant 18.4 Million USD) for scene understanding.

2021.10 - 2022.04: Intern at AI center of Samsung, UK.

RESEARCH INTERESTS

Computer Vision: Object Recognition and Semantic Segmentation

Transfer Learning: Unsupervised Domain Adaptation, Source-free Domain Adaptation and Test-time Adaptation

Few-shot Learning: Meta-learning and Generalized Few-shot Models

Efficient Tuning of Foundation Models: Efficient Tuning of Vision-Language Models

PUBLICATIONS

Published (*: Equal contribution, †: Corresponding author)

[1]. Beyond Sole Strength: Customized Ensembles for Generalized Vision-Language Models

Zhihe Lu, Jiawang Bai, Xin Li, Zeyu Xiao, Xinchao Wang

ICML 2024

[2]. Uncertainty-aware Source-free Domain Adaptive Semantic Segmentation

Zhihe Lu, Da Li, Yi-Zhe Song, Tao Xiang, Timothy M. Hospedales

TIP 2023

[3]. Prediction Calibration for Generalized Few-shot Semantic Segmentation

Zhihe Lu, Sen He, Da Li, Yi-Zhe Song, Tao Xiang

TIP 2023

[4]. Simpler is Better: Few-shot Semantic Segmentation with Classifier Weight Transformer

Zhihe Lu, Sen He, Xiatian Zhu, Li Zhang, Yi-Zhe Song, Tao Xiang

ICCV 2021

[5]. Stochastic Classifiers for Unsupervised Domain Adaptation

Zhihe Lu, Yongxin Yang, Xiatian Zhu, Yi-Zhe Song, Tao Xiang

CVPR 2020

[6]. Conditional Expression Synthesis with Face Parsing Transformation

Zhihe Lu, Tanhao Hu, Lingxiao Song, Zhaoxiang Zhang, Ran He

ACM MM 2018

[7]. Task Residual for Tuning Vision-Language Models

Tao Yu*, Zhihe Lu*, Xin Jin, Zhibo Chen, Xinchao Wang

CVPR 2023

- [8]. **GraphAdapter: Tuning Vision-Language Models With Dual Knowledge Graph**
Xin Li, Dongze Lian*, Zhihe Lu*, Jiawang Bai, Zhibo Chen, Xinchao Wang* *NeurIPS 2023*
- [9]. **Ultra-High-Definition Image Demoiréing via Patch Bilateral Compensation**
Zeyu Xiao, Zhihe Lu*, Xinchao Wang* *ACM MM 2024*
- [10]. **Unraveling Motion Uncertainty for Local Motion Deblurring**
Zeyu Xiao, Zhihe Lu*, Michael Bi Mi, Xinchao Wang* *ACM MM 2024*
- [11]. **Revisiting Self-Supervised Heterogeneous Graph Learning from Spectral Clustering**
Yujie Mo, Zhihe Lu, Runpeng Yu, Xiaofeng Zhu, Xinchao Wang *NeurIPS 2024*
- [12]. **Frequency-Enhanced Data Augmentation for Vision-and-Language Navigation**
Keji He, Chenyang Si, Zhihe Lu, Yan Huang, Liang Wang, Xinchao Wang *NeurIPS 2023*
- [13]. **Parameter-Efficient and Memory-Efficient Tuning for Vision Transformer**
Taolin Zhang, Jiawang Bai, Zhihe Lu, et al. *ECCV 2024*
- [14]. **Dual-Path Adversarial Lifting for Domain Shift Correction in Online Test-time Adaptation**
Yushun Tang, Shuoshuo Chen, Zhihe Lu, Xinchao Wang, et al. *ECCV 2024*
- [15]. **Geometry Guided Adversarial Facial Expression Synthesis**
Lingxiao Song, Zhihe Lu, Ran He, Zhenan Sun, Tieniu Tan *ACM MM 2018*
- [16]. **Memory-adaptive vision-and-language navigation**
Keji He, Ya Jing, Yan Huang, Zhihe Lu, Dong An, Liang Wang *PR 2024*
- [17]. **Recent Progress of Face Image Synthesis**
Zhihe Lu, Zhihang Li, Jie Cao, Ran He, Zhenan Sun *ACPR 2017*
- [18]. **Person Identification from Lip Texture Analysis**
Zhihe Lu, Xiang Wu, Ran He *DSP 2016*

HONORS & AWARDS

Student representative at CVSSP, University of Surrey	2019 – 2022
Outstanding Graduate of Henan Province, Zhengzhou University	2013 – 2014
National Scholarship, Zhengzhou University	2012 – 2013

PROFESSIONAL SERVICES

Journal Reviewer:

IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)
 International Journal of Computer Vision (IJCV)
 IEEE Transactions on Image Processing (TIP)
 ACM Computing Surveys
 IEEE Transactions on Neural Networks and Learning Systems (TNNLS)
 Pattern Recognition (PR)

Conference Reviewer / Program Committee Member:

IEEE Conference on Computer Vision and Pattern Recognition (CVPR)	2023 - 2025
International Conference on Computer Vision (ICCV)	2023
European Conference on Computer Vision (ECCV)	2022, 2024
Neural Information Processing Systems (NeurIPS)	2023 - 2024
International Conference on Machine Learning (ICML)	2023 - 2025

International Conference on Learning Representations (ICLR)
AAAI Conference on Artificial Intelligence (AAAI)

2024 - 2025
2022 - 2025