Shuguang Dou

+86 13818347625 | dousg@tongji.edu.cn | shuguang-52.github.io/ | github.com/shuguang-52 | Shuguang Dou

I am a last year PhD student and luckily advised by **Prof. Cairong Zhao**. I am passionate about computer vision research in the following topics: Trustworthy Person Re-identification, NAS benchmark, Infographics understanding, and AI for Science.

I am always grateful to those more senior who have a deep understanding of these topics for their advice. Besides, I am always willing to collaborate with people interested in relevant issues and provide corresponding guidance to younger students (undergrad or master).

EDUCATION

Tongji University, *Ph.D. in Computer Science* | Shanghai, China — Sep 2024
University of Shanghai for Science and Technology, *M.S. in Mechanical Engineering* | Shanghai, China — April 2020
University of Shanghai for Science and Technology, *B.S. in Mechanical Engineering* | Shanghai, China — May 2017

INTERNSHIP EXPERIENCE

Microsoft Research Asia (Shanghai) | Research Intern (Mentor: Xingyang Jiang) | Machine Learning Group|From 2021-11 to 2023-05

Low Carbon (One paper Accepted by ICLR Spotlight, One paper submitted to IEEE T-PAMI) — Nov 2022 - April 2024

- Developed a novel surrogate model suitable for more general and complex joint HAS search space
- Provided the first large-scale benchmark of a joint architecture/hyperparameter search space containing over 10 billion configurations, covering a wide range of configurations associated with search energy costs.

Inforgraphics Understanding (Paper Accepted by T-PAMI) — Feb 2022 - Now

- Proposed an efficient end-to-end graph-based method that does not require the conversion of vector graphics to raster graphics, but instead defines the predicted objects from raw text.
- A new vector graph-based benchmark for large-scale graph understanding is constructed.

SVG-based Chart Understanding - *Live Charts* (Paper Accepted by T-VCG) — Nov 2022 - April 2024

- Given a static SVG-based chart, it is restored to a dynamic chart based on computer vision techniques and LLM to tell the story better and capture the user's attention.

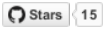
Michigan State University (USA) |Short-term Visiting Scholar(Advisor: Xiaoming Liu) | CV Lab | From 2024-01 to 2024-06

Real-world Person Re-identification(One paper submitted to CVPR 2025) — Jan 2024 - June 2024

- Exploited Frozen Large Vision Models for Any Setting of Person Re-identification.

PUBLICATIONS

Research Direction 1 - *Microsoft Research Intern Projects: Efficient Search and Infographics Understanding* — Nov 2021 - Now

- EA-HAS-Bench and Language-Enhanced Shrinkage for Neural Architecture Search
  Cairong Zhao*, **Shuguang Dou*** , Jiale Zhao, Xinyang Jiang, Junyao Gao, Yuge Zhang, Bo Li, Dongsheng Li (* denotes equal contribution with My advisor)
  Under *Major Revision* by IEEE Transactions on Pattern Analysis and Machine Intelligence (**T-PAMI**) in 2025, **IF=20.8**, CCF A
- Hierarchically Recognizing Vector Graphics and A New Chart-based Vector Graphics Dataset 
  Shuguang Dou, Xinyang Jiang, Lu Liu, Lu Ying, Caihua Shan, Yifei Shen, Xuanyi Dong, Yun Wang, Dongsheng Li, Cairong Zhao
  Accepted by IEEE Transactions on Pattern Analysis and Machine Intelligence (**T-PAMI**) in 2024, **IF=20.8**, CCF A
- Reviving Static Charts into Live Charts
  Lu Ying, Yun Wang, Haotian Li, **Shuguang Dou** , Haidong Zhang, Xinyang Jiang, Huamin Qu, Yingcai Wu
  Accepted by IEEE Transactions on Visualization and Computer Graphics (**T-VCG**) in 2024, **IF=4.7**, CCF A
- EA-HAS-Bench: Energy-Aware Hyperparameter and Architecture Search Benchmark 
  Shuguang Dou, Xinyang Jiang, Cai Rong Zhao, Dongsheng Li
  Accepted by International Conference on Learning Representations (**ICLR**) in 2023, **Spotlight**

Research Direction 2-*Trustworthy Person Re-identification: Robust, Security, and Privacy-Preserving* — Oct 2020 - Now

- Towards Real-World Person Re-Identification under Clothing Uncertainty
  Shuguang Dou, Xiaoming Liu, Cairong Zhao.
  Submitted IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), CCF A
- Decouple Person Id-identification and Parsing for Occluded Person Re-identification 
  Shuguang Dou, Xinyang Jiang, Yuanpeng Tu, Junyao Gao, Zefan Qu, Qingsong Zhao, Cairong Zhao.
  Submitted to IEEE Transactions on Image Processing (**T-IP**) in 2025, **IF=10.8**, CCF A

- Towards Privacy-preserving Person Re-identification via Person Identify Shift
  Shuguang Dou, Xinyang Jiang, Qingsong Zhao, Dongsheng Li, Cairong Zhao
  Under *Minor Revision* by SCIENCE CHINA Information Sciences (**SCIS**) in 2024, **IF=7.3**, CCF A
- Re-ID-leak: Membership Inference Attacks Against Person Re-Identification
  Junyao Gao, Xinyang Jiang, **Shuguang Dou**, Dongsheng Li, Duoqian Miao, Cairong Zhao.
  Accepted by International Journal of Computer Vision (**IJCV**) in 2024, **IF=11.6**, CCF A
- Invisible Backdoor Attack with Dynamic Triggers against Person Re-identification Stars 4
  Wenli Sun, Xinyang Jiang, **Shuguang Dou**, Dongsheng Li, Duoqian Miao, Cheng Deng, Cairong Zhao
  Accepted by IEEE Transactions on Information Forensics and Security (**T-IFS**) in 2023, **IF=6.3**, CCF A
- Similarity Distribution based Membership Inference Attack on Person Re-identification Stars 11
  Junyao Gao, Xinyang Jiang, Huishuai Zhang, Yifan Yang, **Shuguang Dou**, Dongsheng Li, Duoqian Miao, Cheng Deng, Cairong Zhao
  Accepted by AAAI Conference on Artificial Intelligence (**AAAI**) in 2023, **Oral**, CCF A
- Human Co-Parsing Guided Alignment for Occluded Person Re-identification Stars 12
  Shuguang Dou, Cairong Zhao, Xinyang Jiang, Shanshan Zhang, Wei-Shi Zheng, Wangmeng Zuo
  Accepted by IEEE Transactions on Image Processing (**T-IP**) in 2022, **IF=10.8**, CCF A
- Context-aware Feature Learning for Noise Robust Person Search
  Cairong Zhao, Zhicheng Chen, **Shuguang Dou**, Zefan Qu, Jiawei Yao, Jun Wu, Duoqian Miao
  Accepted by IEEE Transactions on Circuits and Systems for Video Technology (**T-CSVT**) in 2022, **IF=8.3**, CCF B
- Intelligent Video Surveillance: A Review of Person Re-identification Research.
  Cairong Zhao, Ding Qi, **Shuguang Dou**, Yuanpeng Tu, Tianli Sun, Song Bai, Xinyang Jiang, Xiang Bai, Duoqian Miao
  Accepted by SCIENCE CHINA: INFORMATION SCIENCE (Chinese Version) in 2021
- Incremental Generative Occlusion Adversarial Suppression Network for Person ReID Stars 13
  Cairong Zhao*, Xinbi Lv*, **Shuguang Dou***, Shanshan Zhang, Jun Wu, Liang Wang (* denotes equal contribution)
  Accepted by IEEE Transactions on Image Processing (**T-IP**) in 2022, **IF=10.8**, CCF A

Research Direction 3 -*AI for Science: Remote Sensing* Oct 2017 - Now

- Machine learning-assisted assessment of key meteorological and crop factors affecting historical mulch pollution
  Zheng Chen, **Shuguang Dou**, Cairong Zhao, Liwen Xiao, Zhibo Lu, Yuping Qiu
  Accepted by Journal of Hazardous Materials in 2024, **IF=12.2**
- Alternately Updated Spectral-Spatial Convolution Network for the Classification of Hyperspectral Stars 39
  Wenju Wang, **Shuguang Dou†**, Sen Wang (†donates Corresponding Author and First Student Author)
  Accepted by Remote Sensing in 2019, **IF=4.2**
- A Fast Dense Spectral-Spatial Convolution Network Framework for Hyperspectral Images classification Stars 85
  Wenju Wang, **Shuguang Dou†**, Zhongmin Jiang, Liujie Sun (†donates Corresponding Author and First Student Author)
  Accepted by Remote Sensing in 2018, **IF=4.2**, ESI Highly Cited Paper Top 1%, 300+ Citation

Collaborative Project: *Dataset Condensation, Model Regularization, X-ray Detection* Oct 2020 - Now

- Towards Universal Dataset Distillation via Task-Driven Diffusion
  Ding Qi, Jian Li, **Shuguang Dou**, Bo Zhao, Chengjie Wang, Cairong Zhao
  Submitted IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), CCF A
- Active Dataset Distillation via Progressive Informative Matching
  Ding Qi, Jian Li, Jianlong Hu, **Shuguang Dou**, Jialin Li, Jiangning Zhang, Bo Zhao, Yabiao Wang, Chengjie Wang, Cairong Zhao
  Submitted to IEEE Transactions on Image Processing (**T-IP**) in 2025, **IF=10.8**, CCF A
- Fetch and Forge: Efficient Dataset Condensation for Object Detection
  Ding Qi, Jian Li, Jinlong Peng, **Shuguang Dou**, Jialin Li, Bo Zhao, Jiangning Zhang, Yabiao Wang, Chengjie Wang, Cairong Zhao
  Accepted by Neural Information Processing Systems (**NeuPIS**) in 2024, CCF A
- Adaptive Discriminative Regularization for Visual Classification
  Qingsong Zhao, Yi Wang, **Shuguang Dou**, Chen Gong, Yin Wang, Cairong Zhao
  Accepted by International Journal of Computer Vision (**IJCV**) in 2024, **IF=11.6**, CCF A
- Detecting Overlapped Objects in X-ray Security Imagery by a Label-aware Mechanism
  Cairong Zhao*, Liang Zhu*, **Shuguang Dou**, Weihong Deng, Liang Wang (* denotes equal contribution)
  Accepted by IEEE Transactions on Information Forensics and Security (**T-IFS**) in 2022, **IF=6.3**, CCF A

ACADEMIC SERVICE

Conferences Reviewer / Program Committee

- International Conference on Machine Learning (**ICML**) 2022, 2023, 2024
- International Conference on Learning Representations (**ICLR**) 2024, 2025
- Neural Information Processing Systems (**NeurIPS**) 2022, 2023, 2024
- IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**) 2024, 2025
- European Conference on Computer Vision (**ECCV**) 2024
- Association for the Advancement of Artificial Intelligence (**AAAI**) 2025
- Asian Conference on Machine Learning (ACML) 2024
- International Conference on Image and Graphics (ICIG) 2023

Journals Reviewer

- International Journal of Computer Vision (**IJCV**)
- IEEE Transactions on Information Forensics and Security (**T-IFS**)
- IEEE Transactions on Circuits and Systems for Video Technology (**T-CSVT**)
- IEEE Transactions on biometrics, behavior, identify science (**T-BIOM)**
- Chinese Science: Information Science
- Cognitive Computation
- IET Image Processing
- PFG-Journal of Photogrammetry, Remote Sensing and Geoinformation Science
- Infrared Physics & Tech
- Signal, Image and Video Processing

HONORS & AWARDS

Tongji University Excellent Doctoral Scholarship	2023
China National Scholarship of Graduate Student	2019
Second Prize in National Graduate Student Mathematical Modeling Competition	2019
National Inspirational Scholarship	2016

Misc

I am a big fan of Japanese manga artist Tatsuki Fujimoto. I love his works Fire Punch and Chainsaw Man.
Love photography because you can turn a moment into an eternity!
Enjoy participating in meaningful social activities (connect with the community).
Dream of being a novelist author.