Hai Jiang

Sichuan University
School of Aeronautics and Astronautics

✉ jianghai1@stu.scu.edu.cn
G Google Scholar
○ GitHub Profile

EDUCATION

•**Ph.D. - Sichuan University**   *2023-present*
Aeronautical and Astronautical Science and Technology   Supervisor: Prof. Songchen Han

•**Master - Sichuan University**   *2020-2023*
Aeronautical and Astronautical Science and Technology   Supervisor: Prof. Songchen Han

•**Bachelor - Sichuan University**   *2016-2020*
Aircraft Control and Information Engineering   Supervisor: Prof. Songchen Han

PROFESSIONAL EXPERIENCES

•**Research Inter - Megvii Technology**   *Jan. 2022-present*
Research area: Homograph Estimation and Low-Light Image Enahncement   Supervisor: Prof. Shuaicheng Liu

PUBLICATIONS

•∗: Equal contributions, †: Corresponding author

[1]. Haipeng Li, **Hai Jiang**, Ao Luo, Ping Tan, Haoqiang Fan, Bing Zeng, Shuaicheng Liu†. "DMHomo: Learning Homography with Diffusion Models". ACM Transactions on Graphics (**ToG, Presented at SIGGRAPH**), 2024. [PDF] [GitHub]

[2]. **Hai Jiang**, Yang Ren, Songchen Han†. "Revisiting Coarse-to-fine Strategy for Low-Light Image Enhancement with Deep Decomposition Guided Training". Computer Vision and Image Understanding (**CVIU**), 2024. [PDF] [GitHub]

[3]. **Hai Jiang**, Ao Luo, Haoqiang Fan, Songchen Han, Shuaicheng Liu†. "Low-Light Image Enhancement with Wavelet-based Diffusion Models". ACM Transactions on Graphics (**ToG, Proceedings of SIGGRAPH Asia**), 2023. [PDF] [GitHub]

[4]. **Hai Jiang**∗, Haipeng Li∗, Songchen Han†, Haoqiang Fan, Bing Zeng, Shuaicheng Liu†. "Supervised Homography Learning with Realistic Dataset Generation". International Conference on Computer Vision (**ICCV**), 2023. [PDF] [GitHub]

[5]. **Hai Jiang**∗, Haipeng Li∗, Yuhang Lu, Songchen Han†, Shuaicheng Liu†. "Semi-supervised Deep Large-Baseline Homography Estimation with Progressive Equivalence Constraint". Thirty-Seventh AAAI Conference on Artificial Intelligence (**AAAI**), 2023. [PDF] [GitHub]

[6]. Shuaicheng Liu†, Yuhang Lu, **Hai Jiang**, Nianjin Ye, Chuang Wang, Bing Zeng. "Unsupervised Global and Local Homography Estimation with Motion Basis Learning". IEEE Transactions on Pattern Analysis and Machine Intelligence (**TPAMI**), 2023. [PDF] [GitHub]

[7]. **Hai Jiang**, Xuan Zhu, Yang Ren, Yutong Hao, Fengzhu Zou, Lin Fang, Songchen Han†. "R2RNet: Low-Light Image Enhancement via Real-low to Real-normal Network". Journal of Visual Communication and Image Representation (**JVCIR**), 2023. [PDF] [GitHub]

[8]. **Hai Jiang**, Yutong Hao, Fengzhu Zou, Lin Fang, Songchen Han†. "Advanced RetinexNet: A Fully Convolutional Network for Low-light Image Enhancement". Signal Processing: Image Communication (**SPIC**), 2023. [PDF]

[9]. **Hai Jiang**, Yang Ren, Yaqi Yu, Songchen Han†. "Combining Spatial and Frequency Information for Image Deblurring". IEEE Signal Processing Letters (**SPL**), 2022. [PDF]

[10]. **Hai Jiang**, Yutong Hao, Fengzhu Zou, Lin Fang, Songchen Han†. "A Visual Navigation System for UAV Under Diverse Illumination Conditions". Applied Artificial Intelligence (**UAAI**), 2021. [PDF]

Academic Services

- **Conference Reviewer:**

  European Conference on Computer Vision (ECCV), 2024

  ACM SIGGRAPH Annual Conference (SIGGRAPH), 2024

  IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2024

  IEEE International Conference on Multimedia and Expo (ICME), 2024

- **Journal Reviewer:**

  International Journal of Computer Vision (IJCV)

  IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)

  IEEE Signal Processing Letters (SPL)

  Computer Vision and Image Understanding (CVIU)

  Computers & Graphics (CG)

Technical Skills

Languages: CET-4, CET-6
Skills: Office, Python, Matlab

Achievements

- **Distinguished** Master's Thesis of Sichuan University   *Jun. 2023*
- **Third Prize** Undergraduate Graduation Design (Thesis) of Sichuan University   *Jun. 2020*