Junlin Han

webpage: https://junlinhan.github.io/ | email: junlin.han@data61.csiro.au | google scholar

EDUCATION

Australian National University   02.2019 – 06.2023
Bachelor of Information Technology (Honours)   Canberra, Australia
GPA: 3.95/4.0 (converted)

RESEARCH INTERESTS

My research interests mostly lie in computer vision & computer graphics, and I'm always looking for ways to apply graphics techniques to vision, or vice versa.

My past and ongoing work span content creation, visual perception, scene understanding, image restoration/enhancement, self-supervised representation learning, 3D vision, data augmentation, etc.

I'm especially in favor of simple ideas that make vision & graphics work.

EXPERIENCE

Visiting Research Intern   12.2021 – ongoing
AIML, University of Adelaide   Adelaide, Australia
Advisor/Host: Prof. Ian Reid
Topics: meta-learning, data augmentation, 3D vision

Research Student   08.2020 – ongoing
Data61, CSIRO   Canberra, Australia
Advisors: Dr. Lars Petersson and Prof. Hongdong Li
Topics: low-level vision, generative models, self-supervised learning

PUBLICATIONS

See my webpage for code, paper, dataset, project page, etc.

1. You Only Cut Once: Boosting Data Augmentation with a Single Cut

   Junlin Han, Pengfei Fang, Weihao Li, Jie Hong, Ali Armin, Ian Reid, Lars Petersson, Hongdong Li

   Under review

2. Blind Image Decomposition

   Junlin Han, Weihao Li, Pengfei Fang, Chunyi Sun, Jie Hong, Ali Armin, Lars Petersson, Hongdong Li

   Preprint, under review

3. Underwater Image Restoration via Contrastive Learning and a Real-world Dataset

   Junlin Han, Mehrdad Shoeiby, Tim Malthus, Elizabeth Botha, Janet Anstee, Saeed Anwar, Ran Wei, Ali Armin, Hongdong Li, Lars Petersson

   Preprint, under review

4. Single Underwater Image Restoration by Contrastive Learning

   Junlin Han, Mehrdad Shoeiby, Tim Malthus, Elizabeth Botha, Janet Anstee, Saeed Anwar, Ran Wei, Lars Petersson, Ali Armin

   IEEE International Geoscience and Remote Sensing Symposium (IGARSS) (oral), 2021

5. Dual Contrastive Learning for Unsupervised Image-to-Image Translation

   Junlin Han, Mehrdad Shoeiby, Lars Petersson, Ali Armin

   New Trends in Image Restoration and Enhancement workshop (NTIRE), IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshops (CVPRW) (oral), 2021

6. Curvature-Aware Geometry for Visual Anomaly Recognition

   Jie Hong, Pengfei Fang, Weihao Li, **Junlin Han**, Lars Petersson, Mehrtash Harandi

   Under review

7. Wholistic Segmentation: Learning to Segment Every Pixel

   Jie Hong, Weihao Li, **Junlin Han**, Jiyang Zheng, Mehrtash Harandi, Lars Petersson

   Under review

Services

Conference review: CVPR 2022
Journal review: Photonics Journal, Journal of Oceanic Engineering
Workshop review: NTIRE (CVPRW) 2021

Technical Skills

Programming Languages: Proficient in Python, MATLAB
Familiar with Java, SQL, HTML/CSS, R, Haskell, Assembly (ARMV7)
Developer Tools: Git, Latex, VS Code, Visual Studio, PyCharm, IntelliJ, Jupyter Notebook
Libraries: PyTorch, NumPy

Awards

Second Best Presentation Award 2021
AIM (Active Integrated Matter) Conference

Top-up Scholarship 2021
for research work at Data61, CSIRO

Undergraduate Vacation Scholarship 2020
for summer research at Data61, CSIRO

References

References Available Upon Request