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: data-centric learning, implicit representation, 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 Preprint

2. Blind Image Decomposition

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

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

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

- Curvature-Aware Geometry for Visual Anomaly Recognition
 Jie Hong, Pengfei Fang, Weihao Li, Junlin Han, Lars Petersson, Mehrtash Harandi
 Under review
- 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: Transactions on Image Processing (TIP), Neurocomputing, Photonics Journal (PJ), Journal of

Oceanic Engineering (JOE)

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 AIM (Active Integrated Matter) Conference	2021
Top-up Scholarship for research work at Data61, CSIRO	2021
Undergraduate Vacation Scholarship for summer research at Data61, CSIRO	2020

References

References Available Upon Request