DONG HUO

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Targeting an full-time internship position in Spring/Summer 2023

EDUCATION

University of Alberta, Canada *Jan 2020 - Jun 2024*
Ph.D., Computing Science

University of Alberta, Canada *Sept 2018 - Dec 2019*
M.Sc., Computing Science

Harbin Institute of Technology, China *Sept 2014 - Jun 2018*
B.Eng., Software Engineering

RESEARCH INTERESTS

Image/Video Restoration (Deblurring, Super-Resolution, Denoising, Hyperspectral Reconstruction), Image Segmentation, Medical Image Processing, Neural Radiance Fields, Structured Light, Transfer Learning, Meta-learning, Convolutional Neural Network, Recurrent Neural Network, Transformer

WORK EXPERIENCE

Computer Graphics Lab, University of Alberta *Jun 2019 - Now*
Advisor: Prof. Herb Yang
Title: Research Assistant
Research topics: Image Restoration (Deblurring, Super-Resolution, Denoising), Image Segmentation, Hyperspectral Image Reconstruction, and Neural Radiance Fields (NeRF)

Quicktron Robotics, China *Jul 2016 – Aug 2016*
Advisor: Lei Luo
Title: Algorithm Engineer Internship
Research topics: Time-sequence Prediction

TEACHING EXPERIENCE

CMPUT 174 - Introduction to the Foundations of Computation I, University of Alberta *Fall 2018 - Fall 2022*
Instructor: Sadaf Ahmed
Title: Teaching Assistant
Teaching topics: Python, Pygame

CMPUT 175 - Introduction to the Foundations of Computation II, University of Alberta *Winter 2019 - Winter 2022*
Instructor: Osmar Zaiane
Title: Teaching Assistant
Teaching topics: Python, Data Structure

TECHNICAL SKILLS

Programming:	Python, MATLAB, C++, Java for Android
Frameworks:	Pytorch, TensorFlow, OpenCV, Scikit learn, ROS
Tools :	AWS, Latex, PyCharm, Labelme

PUBLICATIONS

1. **Dong Huo**, Abbas Masoumzadeh, Herb Yang, "Blind Non-Uniform Motion Deblurring using Atrous Spatial Pyramid Deformable Convolution and Deblurring-Reblurring Consistency", in the New Trends in Image Restoration and Enhancement Workshop and Challenges at CVPR (CVPR NTIRE-Workshop), 2022

2. **Dong Huo**, Abbas Masoumzadeh, Rafsanjany Kushol, Herb Yang, "Blind Image Deconvolution Using Variational Deep Image Prior", in the IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), 2022 (Under Review)
3. **Dong Huo**, Jian Wang, Yiming Qian, Herb Yang, "Glass Segmentation with RGB-Thermal Image Pairs", in the IEEE Transactions on Image Processing (TIP), 2022 (Under Review)
4. **Dong Huo**, Herb Yang, "Blind Image Super-Resolution with Spatial Context Hallucination", Technical Report, 2020
5. Rafsanjany Kushol, Abbas Masoumzadeh, **Dong Huo**, Sanjay Kalra, Herb Yang, "ADDFormer: Alzheimer's Disease Detection from structural MRI using Fusion Transformer", in the IEEE International Symposium on Biomedical Imaging (ISBI), 2022
6. Zhanghao Sun, Yu Zhang, Yicheng Wu, **Dong Huo**, Yiming Qian, Jian Wang, "Structured Light with Redundancy Codes", Technical Report, 2022
7. Two papers are under blind review in CVPR, 2023

PATENT

1. Tonghua Su, Bin Li, **Dong Huo**, "High Efficient Method and System for Tumor labeling on Medical Image", China patent CN2018107992792.
2. Tonghua Su, Lijuan Yu, **Dong Huo**, "Deep-learning-Based System for Diagnostic report Generation from Medical Image", China patent CN2018107589994.

PROFESSIONAL SERVICE

- Reviewer for IEEE Transactions on Circuits and Systems for Video Technology (T-CSVT), IEEE Signal Processing Letters (SPL)