Mr. Xin TAO

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OBJECTIVE

· To obtain a job position.

EDUCATION

Ph.D. Candidate | 2013 - Present | The Chinese University of Hong Kong (CUHK), Hong Kong
· Major: Computer Science and Engineering
· Supervisor: Prof. Jiaya Jia

B.Eng |2009 - 2013 | Shanghai Jiao Tong University (SJTU), Shanghai, China
· Major: Information Engineering (School of Electronic Information and Electrical Engineering (SEIEE))
· Program: Teaching Reform Class (TRC) – **Honors Class**
· Overall GPA: **89.22** / 100 | **90.72** / 100 (Major) | Rank: **1** / 91 (in TRC).

INTERESTS

Computer Vision
· Previously I mainly focused on various Image Restoration and Computational Photography problems.
· Recently I pay more attention on Deep Learning based methods for low-level tasks or interesting usage.

PUBLICATIONS

· Two first-author submitted papers for ICCV 2017 are under review, regarding: video super-resolution and filtering.

· Xiaoyong Shen, **Xin Tao**, Chao Zhou, Hongyun Gao, Jiaya Jia, "Regional Foremost Matching for Internet Scene Images", ACM Transactions on Graphics (TOG) (SIGGRAPH Asia 2016)

· Xiaoyong Shen, **Xin Tao**, Hongyun Gao, Chao Zhou, Jiaya Jia, "Deep Automatic Portrait Matting", ECCV 2016.

· Renjie Liao, **Xin Tao**, Ruiyu Li, Ziyang Ma, Jiaya Jia, "Video Super-Resolution via Deep Draft-Ensemble Learning", ICCV 2015.

· Jianping Shi, **Xin Tao**, Li Xu, Jiaya Jia, "Break Ames room illusion: depth from general single images", ACM Transactions on Graphics (TOG) (SIGGRAPH Asia 2015)

· Ziyang Ma, Renjie Liao, **Xin Tao**, Li Xu, Jiaya Jia, "Handling Motion Blur in Multi-Frame Super-Resolution", CVPR 2015.

· Li Xu, **Xin Tao**, and Jiaya Jia. "Inverse Kernels for Fast Spatial Deconvolution." ECCV 2014.

· Guangqiang He, Taizhi Liu, and **Xin Tao**, "The Multiparty Coherent Channel and its Implementation with Linear Optics", Optics Express (2013).

EXPERIENCES

Ph.D. Student | CUHK | 2013 - Present
- Supervisor: Prof. Jiaya Jia
- Research Projects Involved:
  - Image Restoration: Image deblurring considering reflectance | Inverse kernels for non-blind deconvolution | Handling motion blur in multi-frame super-resolution | CNN-based method for video super-resolution.
  - Computational Photography: Image filtering | Single image depth estimation using small defocus clue | Automatic matting using deep learning.

Research Intern | Adobe Research | June 2016 – Sept 2016
- Lab: Creative Technologies Lab (CTL) in Seattle
- Advisor: Jue Wang

Research Assistant | SJTU | 2010 - 2012
- Lab: Laboratory of Quantum Nonlinear Photonics (QNP)
- Supervisor: Assoc. Prof. Guangqiang He
- Research Projects Involved:
  - Implemented an automatic algorithm for non-periodic nonlinear photonic crystals design.
  - Designed a new implementation for multiparty quantum coherent channel.

HONORS & AWARDS

· CUHK Certificate of Merit for Best Teaching Assistant Award		2014 - 2015
· CUHK Postgraduate Studentship		2013 - Present
· Shanghai Outstanding Graduates	(Top 1%)	2013
· National Scholarship	(Top 1 of 91)	2011
· SJTU Academic Excellence Scholarship: First-class Prize	(Top 1%)	2011
· Third Prize, China Undergraduate Mathematical Contest in Modeling (CUMCM 2011)		2011
· Honorable Mention Prize in Mathematical Contest In Modeling 2011 (MCM 2011)		2011

SKILLS

Self Evaluation
- Curious and passionate to new knowledge and techniques | Active and analytical to dig into underlying principles and to solve tough problems | Quick to learn, self-motivated and hardworking | Open-minded to communicate and able to cooperate pleasantly
- Comprehensive background in various low-level vision techniques and methods | Good knowledge to representative methods in high-level vision.

Deep learning
- Proficient in Deep Learning framework Tensorflow, Caffe | Experienced in Torch
- Experienced in implementing various network structure for low-level tasks, semantic segmentation and detection.

Programming
- Proficient in MATLAB, Python | Experienced in C/C++, Lua
- Experienced in many computer vision and machine learning libraries and tools

REFERENCES

Ph.D. Supervisor | Prof. Jiaya Jia | Website
Adobe Mentor | Dr. Jue Wang | Website
B.Eng. Mentor | Assoc. Prof. Guangqiang He | Website

Other information available upon request.