Hao ZHOU, Ph.D

CONTACT INFORMATION	AWS Amazon Nitro, 2250 7th Ave, Seattle, WA 98121	*Phone:* 202-445-5982 *Working E-mail:* zhouho@amazon.com *Personal E-mail:* zhhoper@gmail.com *Page:* https://zhhoper.github.io

CURRENT STATUS

Amazon Web Services   **Sep. 2019 - present**
Applied Scientist, AWS Rekognition

- Research and develop machine learning and computer vision algorithms for AWS image and video analytical services, contributed to the launch of face search and verification.

EDUCATION

The University of Maryland - College Park (UMD)   **Sep. 2013 - Aug. 2019**

- Ph.D. Dept. of Computer Science
- Adviser: Prof. David W. Jacobs
- Area of Study: Computer Vision

The University of Hong Kong (HKU)   **Sep. 2010 - Nov. 2012**

- M.Phil. Dept. of Computer Science
- Adviser: Dr. Kwan-Yee K. Wong
- Area of Study: Computer Vision

The University of Science and Technology of China (USTC)   **Sep. 2006 - Jun. 2010**

- B.Eng Dept. of Electronic Engineering and Information Science

PREVIOUS RESEARCH EXPERIENCE

Intern at Adobe Research   **May - Aug. 2018**

- Mentor: Sunil Hadap
- Topic: Deep portrait relighting.

Intern at Media Analytics group NEC Labs America   **May - Aug. 2017**

- Mentor: Quoc-Huy Tran and Manmohan Chandraker
- Topic: Learning affordance correspondence through human object interaction.

Intern at National ICT (NICTA) Australia   **Jul. - Oct. 2015**

- Mentor: Jose M. Alvarez and Fatih Porikli
- Topic: Compressing deep neural networks.

Research Assistant at The University of Hong Kong   **Nov. 2012 - Jul. 2013**

- Adviser: Dr. Kwan-Yee K. Wong
- Topic: Face sketch synthesis.

REFEREE

Journal: IEEE Transactions on Signal Processing. IEEE Transactions on Image Processing.
Conference: ICCV, CVPR, ECCV, AAAI, WACV, ACCV

PUBLICATIONS IN COMPUTER VISION

1. Rahul Duggal, **Hao Zhou**, Shuo Yang, Yuanjun Xiong, Wei Xia, Zhuowen Tu, Stefano Soatto. Compatibility-aware Heterogeneous Visual Search. IEEE *International Conference on Computer Vision and Pattern Recognition (CVPR)*, 2021.

2. Koutilya PNVR, **Hao Zhou**, David Jacobs. SharinGAN: Combining Synthetic and Real Data for Unsupervised Geometry Estimation. IEEE *International Conference on Computer Vision and Pattern Recognition (CVPR)*, 2020.

3. **Hao Zhou**, Sunil Hadap, Kalyan Sunkavalli, David W Jacobs. Deep Single-Image Portrait Relighting. IEEE *International Conference on Computer Vision (ICCV)*, 2019.

4. **Hao Zhou**, Yu, Xiang, David W Jacobs. GLoSH: Global-Local Spherical Harmonics for Intrinsic Image Decomposition. IEEE *International Conference on Computer Vision (ICCV)*, 2019. (Oral)

5. **Hao Zhou**[*], Jin Sun[*], Yaser Yacoob, David W Jacobs. Label Denoising Adversarial Network (LDAN) for Inverse Lighting of Face Images. IEEE *International Conference on Computer Vision and Pattern Recognition (CVPR)*, 2018. (spotlight, [*] means equal contribution)

6. Hui Ding, **Hao Zhou**, Shaohua Kevin Zhou, Rama Chellappa. A Deep Cascade Network for Unaligned Face Attribute Classification. *Association for the Advancement of Artificial Intelligence (AAAI)*, 2018. (spotlight)

7. Soumyadip Sengupta, **Hao Zhou**, Walter Forkel, Ronen Basri, Tom Goldstein, David W Jacobs. Solving Uncalibrated Photometric Stereo Using Fewer Images by Jointly Optimizing Low-rank Matrix Completion and Integrability. *Journal of Mathematical Imaging and Vision (JMIV)*, 2018.

8. **Hao Zhou**, Jose M. Alvarez, Fatih Porikli. Less is More: Towards Compact CNNs. *European Conference on Computer Vision (ECCV)*, 2016. (Spotlight)

9. **Hao Zhou**, Torsten Sattler, David W. Jacobs. Evaluating Local Features for Day-Night Matching. *European Conference on Computer Vision (ECCV)* , 2016. (workshop)

10. **Hao Zhou**, Zhanghui Kuang, Kwan-Yee K. Wong. Markov Weight Fields for Face Sketch Synthesis. IEEE *International Conference on Computer Vision and Pattern Recognition (CVPR)*, 2012.

11. Zhanghui Kuang, Dirk Schnieders, **Hao Zhou**, Kwan-Yee K. Wong, Yizhou Yu, Bo Peng. Learning Image-Specific Parameters for Interactive Segmentation. IEEE *International Conference on Computer Vision and Pattern Recognition (CVPR)*, 2012.

PUBLICATIONS IN OTHER FIELD

1. Hong Wei, **Hao Zhou**, Jagan Sankaranarayanan, Sudipta Sengupta, Hanan Samet. Delle: Detecting latest local events from geotagged tweets. Proceedings of the 3rd *ACM SIGSPATIAL International Workshop on Analytics for Local Events and News*, 2019.

2. Hong Wei, **Hao Zhou**, Jagan Sankaranarayanan, Sudipta Sengupta, Hanan Samet. Detecting latest local events from geotagged tweet streams. Proceedings of the 26th *ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems*, 2018.

3. Hong Wei, **Hao Zhou**, Jangan Sankaranarayanan, Sudipta Sengupta, Hanan Samet. Residual convolutional LSTM for tweet count prediction. Companion *Proceedings of the The Web Conference*, 2018.

TEACHING

Teaching Assistant, Dept. of Computer Science, UMD
- CMSC733 Computer Processing of Pictorial Information (Prof. David W. Jacobs)   Fall 2014
- CMSC426 Image Processing (Prof. David W. Jacobs)   Spring 2014
- CMSC131 Object-Oriented Programming I (Dr. Fawzi Emad and Dr. Evan Golub).   Fall 2013

Teaching Assistant, Dept. of Computer Science, HKU
- CSIS0259 Principles of Programming Languages (Dr. C.F. Chong).   Fall 2011
- CSIS0234A Computer and Communication Networks (Dr. T.C. Tam).   Spring 2011

HONORS & AWARDS

Dean's Fellowship, Dept. of CS, UMD	**2013, 2014**
Guanghua Scholarship	**2009**
Weining Gong Scholarship	**2008**
Outstanding Student Scholarship of USTC, Grade 1	**2007**