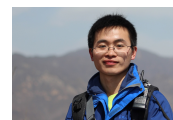


# Hongwei Qin

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## Education

- 2012 – 2017 **Ph.D.**, *Department of Automation, Tsinghua University, Beijing.*  
Research topics: computer vision and deep learning.  
Thesis: Object Detection by Deep Convolutional Neural Networks
- 2008 – 2012 **B.Eng.**, *Department of Automation, Tsinghua University, Beijing.*

## Research Experience

- 2019 – **Director of AI Camera Department**, *SenseTime.*  
- AI Camera, Vision IoT
- 2017 – **Research Lead**, *SenseTime.*  
- Research: AutoML, ISP, Video Recognition, Detection.  
- Products: AI Camera, Vision IoT, Core Algorithms of SmartPhone and SmartCity
- 2015 – 2017 **Research Intern**, *SenseTime.*  
- Delivered face detection solutions for all the face products of SenseTime.
- 2012 – 2017 **PhD Student Researcher**, *Tsinghua University.*  
- With Prof. Xiu Li  
- Focused on computer vision and deep learning. I had been doing research on CNN model compression, face recognition, object detection, image classification, semantic segmentation and 3D reconstruction.
- Spring, 2014 **Research Assistant**, *Broadband Network and Digital Media Laboratory, Department of Automation, Tsinghua University, Beijing.*  
- Worked on depth estimation from single still images (2D to 3D). Our algorithm used a very light-weight model while achieved state-of-the-art results. See publications (ACCV2014, T.CSVT2016) for details.  
- Worked with Prof. Qionghai Dai (now Fellow of Chinese Academy of Engineering) and Dr. Yangang Wang (now Associate Professor of Southeast University).
- Nov. 2013 **Visiting Student**, *Web Science DTC, University of Southampton, UK.*  
- Investigated Visualizations of Marketing Trends on Online Social Networks
- Summer, 2011 **Visiting Student**, *The Intelligent Modelling and Analysis Research Group, The University of Nottingham, UK.*  
- Investigated Energy Decision in Future City

## Publications

Rundong Li, Yan Wang, Feng Liang, Hongwei Qin, Junjie Yan, and Rui Fan. Fully quantized network for object detection. In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2019.

Wei Gao, Yi Wei, Quanquan Li, Hongwei Qin, Wanli Ouyang, and Junjie Yan.

Pruning with hints: an efficient framework for model acceleration. 2018.

Yi Wei, Xinyu Pan, Hongwei Qin, Wanli Ouyang, and Junjie Yan. Quantization mimic: Towards very tiny cnn for object detection. In *European Conference on Computer Vision (ECCV)*, 2018.

Congrui Hetang, Hongwei Qin, Shaohui Liu, and Junjie Yan. Impression network for video object detection. *arXiv preprint arXiv:1712.05896*, 2017.

Zekun Hao, Yu Liu, Hongwei Qin, Junjie Yan, Xiu Li, and Xiaolin Hu. Scale-aware face detection. In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2017.

Hongwei Qin, Junjie Yan, Xiu Li, and Xiaolin Hu. Joint training of cascaded CNN for face detection. In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2016.

Hongwei Qin, Xiu Li, Yangang Wang, Yongbing Zhang, and Qionghai Dai. Dept: Depth estimation by parameter transfer with a lightweight model for single still images. *Circuits and Systems for Video Technology, IEEE Transactions on*, 2016.

Hongwei Qin, Xiu Li, Jian Liang, Yigang Peng, and Changshui Zhang. Deepfish: Accurate underwater live fish recognition with a deep architecture. *Neurocomputing*, 2015.

Xiu Li, Hongwei Qin, Yangang Wang, Yongbing Zhang, and Qionghai Dai. DEPT: Depth estimation by parameter transfer for single still images. In *The 12th Asian Conference on Computer Vision (ACCV)*, 2014.

Hongwei Qin, Yigang Peng, and Xiu Li. Foreground extraction of underwater videos via sparse and low-rank matrix decomposition. In *Computer Vision for Analysis of Underwater Imagery, 2014 ICPR Workshop on*. IEEE, 2014.

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## Academic Activities

Since 2014 **Reviewer: IJCV, ECCV, CVPR, ICCV etc..**

2017 **President and Founder of Tsinghua-SenseTime AI Club.**

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## Former Interns (Undergraduates list only)

Zekun Hao Undergraduate@Beihang CS, now PhD@Cornell

Ji Lin Undergraduate@Tsinghua EE

Congrui Hetang Undergraduate@Beihang CS, now Master@CMU

Shaohui Liu Undergraduate@Tsinghua EE

Yi Wei Undergraduate@Tsinghua EE, now PhD@Tsinghua

Mingjie Sun Undergraduate@Tsinghua Yao Class

Zhen Dong Undergraduate@Peking University MicroElectronics, now PhD@Berkeley

Jiayi Weng Undergraduate@Tsinghua CS

Yuheng Zhi Undergraduate@Shanghai Jiaotong University CS

Yi Zhang Undergraduate@Nanjing University InfoManagement, now PhD@CUHK

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## Recent Awards

- 2019 **SenseTime Dean Innovation Award (for AI Camera)..**
- 2018 **SenseTime Outstanding Team for Deep Learning Camera. SenseTime Outstanding Individual..**
- 2015-2017 **Many Internship Awards in SenseTime.**
- Nov. 2014 **National PhD Fellowship.**

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## Interests

- 2012–2013 **Mountaineering.**
  - Served as team member and climbing captain in Tsinghua University Mountaineering Team
  - Climbed Touding Mengke Snow Mountain East Peak (5483m) and South Peak (5475m) in Gansu, Xuanwu Peak (5383m) in Sichuan, and Tuanjie Peak(5827m) in Qinghai
- 2013–present **Cycling.**
  - Surrounded Qinghai Lake
  - Completed North Guangdong Line
  - Surrounded Erhai Lake
  - Surrounded Lugu Lake
- 2015–present **Long Distance Hiking.**
  - Shenzhen 100km Hiking 2015 2016 2017
  - North Xinjiang Hiking in 2017 as an after-graduation trip
- 2010–present **Marathon.**
  - Completed several half Marathons in Beijing, Guangzhou, Shenzhen and Shanghai
- 2012–present **Photography.**
  - Photographed for 2012 Tsinghua University Mountaineering Team
- 2014–present **Blogger, <http://qinhongwei.com>.**
  - Top Single Article Pageviews: 10000+
- 2017–present **WeChat blog, *Dr\_red\_*.**
  - Top Single Article Pageviews: 10000+