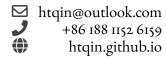
Haotong Qin

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EDUCATION

Ph.D. Shen Yuan Honors College, Beihang University, 2019-

B.S. School of Computer Science and Engineering, Beihang University, 2015–19

RESEARCH INTERESTS

Network binarization and quantization Neural architecture design and search Hardware implementation of compact network Image synthesizing 3D point cloud processing Few/Zero-shot learning

APPOINTMENTS AND INTERNSHIPS

2020 Tencent Holdings Ltd.

Research Intern, WeiXin Group

Accelerating the Recommendation System Based on Graph Neural Network

2018–19 Microsoft Research Asia

Research Intern, Speech Group

Building an Extremely Efficient Deep Learning System for Character Recognition

PUBLICATIONS

Conference Proceedings

Haotong Qin*, Zhongang Cai*, Mingyuan Zhang*, Yifu Ding, Haiyu Zhao, Shuai Yi, Xianglong Liu, Hao Su (* indicates equal contribution). BiPointNet: Binary Neural Network for Point Clouds[C] //Proceedings of the *International Conference on Learning Representations* (ICLR). 2021.

Xiangguo Zhang*, **Haotong Qin***, Yifu Ding, Ruihao Gong, Qinghua Yan, Renshuai Tao, Yuhang Li, Fengwei Yu, Xianglong Liu (* indicates equal contribution). Diversifying Sample Generation for Data-Free Quantization[C] //Proceedings of the *IEEE/CVF Conference on Computer Vision and Pattern Recognition* (CVPR). Oral presentation. 2021.

Hainan Li, Renshuai Tao, Jun Li, **Haotong Qin**, Yifu Ding, Shuo Wang, Xianglong Liu. Multi-pretext Attention Network for Few-shot Learning with Self-supervision[C]
//Proceedings of the *IEEE International Conference on Multimedia and Expo* (ICME). 2021.

Haotong Qin, Ruihao Gong, Xianglong Liu, Mingzhu Shen, Ziran Wei, Fengwei Yu, Jingkuan Song. Forward and Backward Information Retention for Accurate Binary Neural Networks[C] //Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR). 2020.

Journal Articles

- Haotong Qin, Ruihao Gong, Xianglong Liu, Xiao Bai, Jingkuan Song, Nicu Sebe. Binary neural networks: A survey[J]. *Pattern Recognition*, 2020, 105: 107281.
- Yan Wu, Xianglong Liu, **Haotong Qin**, Ke Xia, Sheng Hu, Yuqing Ma, Meng Wang. Boosting Temporal Binary Coding for Large-Scale Video Search[J]. *IEEE Transactions on Multimedia* (TMM), 2020, 23: 353-364.

Patents

- Xianglong Liu, **Haotong Qin**, Yifu Ding, Zhongang Cai, Mingyuan Zhang. A Point Cloud-oriented Method and Device for Efficient Neural Network Binarization. *Chinese patent* CN112183731A.
- 2020 Xianglong Liu, **Haotong Qin**. A Method and Device for Generating Information Retention Network. *Chinese patent* CN111523637A.
- Xianglong Liu, Mingzhu Shen, **Haotong Qin**. A Method and System for Balanced Binary Neural Network Quantization. *Chinese patent* CNII0472725A.

Manuscripts in Review

- Haotong Qin, Xiangguo Zhang, Ruihao Gong, Ziran Wei, Yi Xu, Xianglong Liu. Distribution-Sensitive Information Retention for Accurate Binary Neural Networks. Under review for *IEEE Transactions on Image Processing* (TIP). 2021.
- Renshuai Tao, Yanlu Wei, Xiangjian Jiang, Hainan Li, **Haotong Qin**, Jiakai Wang, Yuqing Ma, Libo Zhang, Xianglong Liu. Towards Real-world X-ray Security Inspection: A High-Quality Benchmark And Lateral Inhibition Module For Prohibited Items Detection. Under review for *International Conference on Computer Vision* (ICCV). 2021.
- Renshuai Tao, Yanlu Wei, Hainan Li, Aishan Liu, Yifu Ding, **Haotong Qin**, Xianglong Liu. Over-sampling De-occlusion Attention Network for Prohibited Items Detection in Noisy X-ray Images. Under review for *IEEE Transactions on Cybernetics* (Cybern). 2021.
- Yan Wu, Jiaxin Fan, Renshuai Tao, Jiakai Wang, **Haotong Qin**, Aishan Liu, Xianglong Liu. Sequential Alignment Attention Model for Scene Text Recognition. Under review for *Journal of Visual Communication and Image Representat* (JVCI). 2021.

MAIN HONORS AND FELLOWSHIPS

202I	Huawei Scholarship (\$1,570)
2020	China National Scholarship (\$4,636)
2020	Enrolled in Tencent Rhino-Bird Elite Training Program
2020	Beihang University First Prize Scholarship (\$2,628)
2019	Beihang University Outstanding Freshman Scholarship (\$4,636)
2019	Summa Cum Laude, Beihang University
2019	ICPC China National Invitational Contest (Nanchang, China) Gold Medal
2018	ACM-ICPC Chinese Collegiate Programming Contest (Shizuishan, China) Gold Medal
	Updated June 2021