Yanjing Li

(+86)15652145018   yanjingli@buaa.edu.cn   Homepage   Scholar

EDUCATION		
	Ph.D., Electronics and Information Engineering, Beihang University, Beijing, China	*Sep 2020 - Present*
	B.S., Electronics and Information Engineering (Shen Yuan Honors College), Beihang University, Beijing, China	*Sep 2016 - Jun 2020*

RESEARCH EXPERIENCE

Research Student, Beihang University   *Sep 2020 - Now*

Advisor: Prof. Xianbin Cao & Prof. Baochang Zhang
Topics: **Efficient NNs**
- Network Binarization & Quantization
- Neural Architecture Search
- 2D & 3D Detection Acceleration

Research Intern, Bytedance, *Beijing, China*   *Mar 2024 - Now*

Mentor: –
Topics: **Binarization and Quantization for Multimodal LLMs**
- General Quantization of LLMs.
- Binarization and Quantization for LLama and LLava.

Research Intern, Shanghai AI Lab, *Beijing, China*   *Nov 2022 - Mar 2024*

Mentor: Xiao Sun
Topics: **Binarization and Quantization for ViTs and AIGC models**
- General Binarization of Vision Transformers.
- Quantization of Diffusion models.

Automatic driving research intern, Sensetime, *Beijing, China*   *Jan 2022 - Oct 2022*

Mentor: Lewei Lu
Topics: **Acceleration and Hardware Deployment for 3D Object Detector**
- Distillation of 3D image-based detector.
- Quantization and Sparsification for 3D lidar-based detector towards deployment

PUBLICATIONS

(* indicates equal contribution)

Conferences

"Bi-ViT: Pushing the Limit of Vision Transformer Quantization".   **AAAI 2024**
  Yanjing Li*, Sheng Xu*, Mingbao Lin, Xianbin Cao, Chuanjian Liu, Xiao Sun, Baochang Zhang

"Q-DM: An Efficient Low-bit Quantized Diffusion Model".   **NeurIPS 2023**
  Yanjing Li*, Sheng Xu*, Xianbin Cao, Baochang Zhang, Xiao Sun

"Representation Disparity-aware Distillation for 3D Object Detection".   **ICCV 2023**
  Yanjing Li*, Sheng Xu*, Mingbao Lin, Jihao Yin, Baochang Zhang, Xianbin Cao

"Q-ViT: Accurate and Fully Quantized Low-bit Vision Transformer".   **NeurIPS 2022**

Yanjing Li*, Sheng Xu*, Baochang Zhang, Xianbin Cao, Peng Gao, Guodong Guo

"Learning 1-Bit Tiny Object Detector with Discriminative Feature Refinement".   **ICML 2024**
   Sheng Xu*, Mingze Wang*, **Yanjing Li***, Mingbao Lin, Baochang Zhang, David Doermann, Xiao Sun

"Q-DETR: An Efficient Low-Bit Quantized Detection Transformer".   **CVPR 2023** (Highlight)
   Sheng Xu*, **Yanjing Li***, Mingbao Lin, Peng Gao, Guodong Guo, Jinhu Lü, Baochang Zhang

"Resilient Binary Neural Network".   **AAAI 2023** (Oral)
   Sheng Xu*, **Yanjing Li***, Teli Ma, Mingbao Lin, Hao Dong, Baochang Zhang, Peng Gao, Jinhu Lü

"Recurrent Bilinear Optimization for Binary Neural Networks".   **ECCV 2022** (Oral)
   Sheng Xu*, **Yanjing Li***, Tiancheng Wang, Teli Ma, Baochang Zhang, Peng Gao, Yu Qiao,
   Jinhu Lü, Guodong Guo

"IDa-Det: An Information Discrepancy-aware Distillation for 1-bit Detectors".   **ECCV 2022**
   Sheng Xu*, **Yanjing Li***, Bohan Zeng, Baochang Zhang, Xianbin Cao, Peng Gao, Jinhu Lü

"POEM: 1-bit Point-wise Operations based on Expectation-Maximization for Efficient Point Cloud
Processing".   **BMVC 2021**
   Sheng Xu*, **Yanjing Li***, Junhe Zhao, Baochang Zhang, Guodong Guo

"Implicit Diffusion Models for Continuous Super-Resolution".   **CVPR 2023**
   Sicheng Gao, Xuhui Liu, Bohan Zeng, Sheng Xu, **Yanjing Li**, Xiaoyan Luo, Jianzhuang Liu,
   Xiantong Zhen, Baochang Zhang

Journals

"DCP-NAS: Discrepant Child-Parent Neural Architecture Search for 1-bit CNNs". **International
Journal of Computer Vision**
   Yanjing Li, Sheng Xu, Xianbin Cao, Li'an Zhuo, Baochang Zhang, Tian Wang, Guodong Guo

"Filter pruning via expectation-maximization"   **Neural Computing and Applications**
   Sheng Xu*, **Yanjing Li***, Linlin Yang, Baochang Zhang, Dianmin Sun, Kexin Liu