# Yushi Huang

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#### **EDUCATION**

## Hong Kong University of Science and Technology

Ph.D. student at ECE, advised by Prof. Jun Zhang

#### **Beihang University**

Bachelor of Computer Science and Technology

• Grade Point Average (GPA): 3.86/4.00

• Weighted Score: 93.2/100

2025.02 – Now Hong Kong SAR, China 2020.09 – 2024.06 Beijing, China

## RESEARCH INTEREST

My research interest is in building efficient vision/language generative models. I am currently working on inference and training acceleration strategies.

#### **Publications**

"\*" and "†" denote equal contributions and corresponding authors.

1. HarmoniCa: Harmonizing Training and Inference for Better Feature Caching in Diffusion Transformer Acceleration

**Yushi Huang\***, Zining Wang\*, Ruihao Gong†, Jing Liu, Xinjie Zhang, Jinyang Guo, Xianglong Liu, Jun Zhang† International Conference on Mchine Learning (ICML), 2025.

2. TFMQ-DM: Temporal Feature Maintenance Quantization for Diffusion Models (2) CYUSHi Huang\*, Ruihao Gong\*, Jing Liu, Tianlong Chen, Xianglong Liu†

Conference on Computer Vision and Pattern Recognition (CVPR), 2024. (Highlight)

3. LLMC: Benchmarking Large Language Model Quantization with a Versatile Compression Toolkit

Ruihao Gong\*, Yang Yong\*, Shiqiao Gu\*, **Yushi Huang\***, Chengtao Lv, Yunchen Zhang, Dacheng Tao, Xianglong Liu† Conference on Empirical Methods in Natural Language Processing: Industry Track (EMNLP Industry Track), 2024.

4. PTSBench: A Comprehensive Post-Training Sparsity Benchmark Towards Algorithms and Models 🔁 🗘

Zining Wang, Jinyang Guo, Yang Yong, Ruihao Gong, Aishan Liu, **Yushi Huang**, Jiaheng Liu, Xianglong Liu† ACM International Conference on Multimedia (ACM MM), 2024.

#### PREPRINT

"\*" and "†" denote equal contributions and corresponding authors.

1. QVGen: Pushing the Limit of Quantized Video Generative Models 🗷

**Yushi Huang**, Ruihao Gong†, Jing Liu, Yifu Ding, Chengtao Lv, Haotong Qin, Jun Zhang† In submission to Conference on Neural Information Processing Systems (NeurIPS), 2025.

2. Temporal Feature Matters: A Framework for Diffusion Model Quantization 🕒

**Yushi Huang**, Ruihao Gong, Xianglong Liut, Jing Liu, Yuhang Li, Jiwen Lu, Dacheng Tao Transactions on Pattern Analysis and Machine Intelligence (TPAMI), Minor Revision.

### **Projects**

### LLMC: Towards Accurate and Efficient LLM Compression () (>400 Stars)

One of the Core Contributors who:

- Implement many quantization methods for LLM, like QuaRot, GPTQ, SmoothQuant, OmniQuant...
- Build an end-to-end LLM quantization tool, that supports multiple model architectures, evaluation approaches, and inference backends...
- Provide best practices for quantization on LLM under different conditions.

#### Experience

#### SenseTime

2023.05 - 2024.12 & 2025.02 - Present

Research Intern, mentored by Dr. Ruihao Gong

Beijing, China

Compression and acceleration for vision/language generative models.

# Microsoft Research Asia

Research Intern, mentored by Dr. Fangyun Wei Video generation and world models.

2024.12 – 2025.02 Beijing, China

# ACADEMIC SERVICES

• Conference Reviewer: NeurIPS, ICLR, ICML, COLM

# Skills

• Programming Languages: Python, C, Java

• Scientific Packegs: Pytorch, Numpy

# **OTHERS**

- Languages:
  - Mandarin Chinese (native)
  - English: 107 (R: 28 L: 29 S: 23 W: 27) in TOEFL iBT TEST