KENNETH YANG

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OBJECTIVE

I am seeking **research internship opportunities** in **Computer Vision, 3D Vision, and Machine Learning**. With a strong research background in parameter-efficient fine-tuning (PEFT) and 3D vision, I have engaged in several innovative projects that underscore my ability to work independently and lead research initiatives.

EDUCATION

National Tsing Hua University   *Hsinchu, Taiwan*
Bachelor of Computer Science | Last 60 GPA: 4.24/4.30   *2020 - 2024*

- **Recipient of Dean's List Award (Top 5%) for two times**

RESEARCH EXPERIENCE

Vision & Learning Lab, National Taiwan University   *Taipei, Taiwan*
Research Assistant with Prof. Yu-Chiang Frank Wang   *Sep. 2024 – Present*

- **Research Areas: Gaussian Splatting, 3D Vision**
  - *Ongoing project addressing spatially-varying Gaussian Splatting with extremely large memory consumption.*
  - Utilizing semantic cues to group Gaussians and enable shared texture maps, significantly reducing memory consumption without compromising rendering quality.

Multimedia Technologies Lab, Academia Sinica IIS   *Taipei, Taiwan*
Summer Research Intern / Research Assistant with Dr. Jen-Chun Lin   *Jul. 2023 – Dec. 2024*

- **Research Areas: PEFT (Parameter-Efficient Fine-Tuning), Multi-Modality Retrieval**
  - *[ICASSP'24 Oral] Music-To-Dance Poses: Learning to Retrieve Dance Poses from Music.*
    - Developed a pioneering music-to-dance pose retrieval system, predicting and matching 3D human poses and shapes from musical snippets.
    - Proposed the innovative EDSA-Adapter, a novel fine-tuning method that integrates self-attention mechanisms with encoder-decoder transformations, achieving significant advancements in cross-modal music-to-dance pose retrieval tasks and surpassing existing methods.
  - *[NeurIPS'25 Planned] FPS: Feed-Forward Based Parameter Selection for Efficient Fine-Tuning*
    - Designing FPS, a novel feed-forward based parameter selection framework that identifies and updates the most impactful parameters during fine-tuning, reducing computational cost without sacrificing model performance.
    - Achieves **SOTA performance with only 10% memory usage** of prior methods on large benchmarks such as FGVC and VTAB-1k.
    - Investigating the effectiveness of FPS on long-tailed benchmarks, aiming for the method to be the most efficient and robust across various dataset distributions.
    - Manuscript in preparation for submission to *NeurIPS 2025*.

Vision Science Lab, National Tsing Hua University   *Hsinchu, Taiwan*
Undergraduate Student with Prof. Min Sun   *Aug. 2023 – Jun. 2024*

- **Research Areas: Multi-View Layout Estimation**
  - Focused on integrating predictions from various perspectives to enhance the accuracy and reliability of indoor spatial layout estimation.

- Contributing to the preparation of the *First Multi-View Layout Estimation Challenge* at the *Omnidirectional Computer Vision (OmniCV) Workshop*, CVPR 2023, including dataset labeling and codebase implementation.

PUBLICATIONS

[1] **FPS: Feed-Forward Based Parameter Selection for Efficient Fine-Tuning.**
Manuscript in preparation for submission to *NeurIPS, 2025*.
Kenneth Yang, Jen-Chun Lin.

[2] **Music-To-Dance Poses: Learning to Retrieve Dance Poses from Music.**
IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), 2024, **Oral Presentation**
Bo-Wei Tseng, **Kenneth Yang**, Yu-Hua Hu, Wen-Li Wei, Jen-Chun Lin.

HONORS

Dean's List Award * 2   *2023, 2024*

Guanyin Temple Outstanding Student Scholarship * 2   *2023, 2024*

MeiChu Hackathon Competition : **3rd Place** in ASML group.   *2022*

- Developed a comprehensive photo processing system featuring image editing, background removal, and automatic detection and deletion of photos with blinking human faces.

NTHU Excellent General Education Work Award   *2020*

TECHNICAL SKILLS

Programming Languages	Python, C/C++, Verilog
Machine Learning Frameworks	PyTorch