

ANDONG HUA

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EDUCATION

University of California, Santa Barbara

Jan. 2024 – Present

Ph.D. in Responsible AI, Multimodal LLM, AI for Healthcare. Advised by Prof. Qin Yao (Year 3)

University of California, Los Angeles

Sept. 2020 – Jun. 2022

M.S. in Electrical and Computer Engineering, GPA: **3.95/4.0**

University of Nottingham

Sept. 2016 – Jun. 2020

B.Eng. in Electrical and Electronic Engineering (2+2), GPA: **85/100**; Rank: **1/160 (Year 3)**

SELECTED PUBLICATIONS

Hua, A.*, Kenan Tang, Gu, C., Gu, J., Wong, E., and Qin, Y. Flaw or Artifact? Rethinking Prompt Sensitivity in Evaluating LLMs. **EMNLP2025 Main Track**.

Hua, A.*, Dhaliwal, M. P.*, Burke, R., Pullela, L., and Qin, Y., NutriBench: A Dataset for Evaluating Large Language Models in Carbohydrate Estimation from Meal Descriptions. **ICLR2025**

Gu, C., Gu, J., **Hua, A.**, and Qin, Y. Improving Adversarial Transferability in MLLMs via Dynamic Vision-Language Alignment Attack. Under Review.

Hua, A., Gu, J., Xue, Z., Carlini, N., Wong, E., and Qin, Y., Initialization Matters for Adversarial Transfer Learning, **CVPR2024**

SELECTED RESEARCH EXPERIENCE

From Words to Visual Tokens: Rethinking Text–Image Alignment via T2I Interleaving

- Built a benchmark to evaluate MLLMs under partial visual substitution; GPT-4.1-mini, for example, showed a 23% performance drop compared to pure text input.
- Proposed a method to enhance MLLMs by substituting text tokens with image tokens, boosting multimodal performance while maintaining text benchmark accuracy.

WORK EXPERIENCE

Amazon

June.-Sept.2025

Applied Scientist Intern | Amazon Smart Vehicle Team

Prompt Optimization.

- Designed and implemented prompt optimization techniques with learned guidelines and error categorization, improving accuracy by 20%
- Code merged into production pipelines and adopted by multiple Amazon teams (e.g., Car Control).
- Introduced an online prompt optimization framework that achieved state-of-the-art results while reducing computation by over 10×.

TuSimple

July.2022-Feb.2023

Research Engineer | Deep Perception Department | Onboard Algorithm Group

Interactive Segmentation.

- Reproduced RITM and redesigned training protocols for semantic segmentation, introducing novel click-based and boundaryIoU metrics.
- Developed a classification head and semantic mode to improve class-level understanding.
- Improved annotation efficiency for small objects and rare classes, reducing required clicks by up to 10×.

Video Bottom-up Co-training.

- Designed a lightweight UNet with shared encoder and multi-head multitask training.
- Enhanced segmentation performance through semi-supervised learning techniques.
- Improved efficiency by implementing fp16, facilitating efficient distributed training and inference.