

To Prospective Students

If you are interested in a **research assistant position** (Ph.D. students, M.S. students, visiting research interns) in my lab, please read the following carefully.

Self-Introduction

My name is **Huan Wang** (王欢, he/him/his), an incoming **Tenure-Track Assistant Professor** at [Westlake University](#) (Hangzhou, China), **principal investigator (PI)** of **ENCODE Lab** (Efficient Neural Computing and Design Lab). I earned my Ph.D. (2024) at Northeastern University (Boston, USA). Before that, I spent seven wonderful years at Zhejiang University (Hangzhou, China) to get my bachelor's and master's degrees. I mainly work on **Efficient AI**. I have collaborated closely with fantastic industrial researchers from Google, Snap, MERL, Meta, Alibaba, etc. Welcome to check my [webpage](#) for more information.

Lab Introduction

- **General background.** Westlake now has 4 schools. I am in the [School of Engineering](#) (工学院), which has 6 programs. I am with the [Artificial Intelligence and Data Science \(AI\)](#) program. For Ph.D. and master students - before you consider our lab, it is advisable to know more about Westlake. As is known, Westlake is quite new and a bit different from many other universities. Make sure this is the right place you want to spend your next several years.
- **Research directions of the lab.** I am interested in a variety of topics in CV & ML, but at this point, the lab is most focused on **Efficient AI in various tasks** (e.g., GenAI, 3D modeling, low-level vision), specifically,
 - typical efficient AI methods, such as network pruning, quantization, distillation, low-rank decomposition, efficient architecture design or search, etc;
 - text-to-image / video, LLM/MLLM, etc;
 - neural rendering, avatars, animation, talking head or face, etc;
 - system design - how to design an effective efficiency portfolio that features optimizations in multiple axes like model architecture, data curation, and training strategy. (please refer to [my webpage](#) for more details of my past research.)
- **Advising style and lab culture.**
 - I am pretty **hands-on** style. I'll regularly meet with you, have discussions, help write the paper, code (if you need), etc., especially for junior students.
 - Meanwhile, you will have **sufficient freedom** to develop your ideas and capabilities.
 - We value an **equal, chill, and creative** working environment. Essentially, we are colleagues at Westlake, working together to solve challenging problems.
- **What we can provide.**
 - **Research-oriented projects** with competitive compensations and a comfortable working environment.
 - We encourage students to do research-oriented **internships**. We will do our best to help find opportunities.

- We encourage students to **attend academic conferences** (either domestic or international), with reimbursements support.
- We have **sufficient GPUs** (clusters of Westlake, lab-owned A6000, 4090, etc.). Also, we have collaboration projects w. industry, which also provides computing support.
- One thing to note - **the Ph.D. degrees in AI conferred by Westlake currently are from Zhejiang University & Westlake University (浙大-西湖联培).**

Qualifications / What Kind of Students We Prefer

1. The prospective students are encouraged to be a “三好学生” (“Merit Students in Three Aspects”), which is due to the beloved Dr. [Jian Sun](#) when he once gave a talk at Zhejiang University:
 - **Good at math** (“数学好”) - Familiar with the fundamentals of ML (such as linear algebra, calculus, probability theory, statistics, etc.)
 - **Good at coding** (“编程好”) - Strong coding ability with Python, C++ (CUDA programming). Proficient with deep learning platforms like PyTorch / TensorFlow -- *This is important!*
 - **With good attitude** (“态度好”) - Good attitude, to me, mostly means
 - **You know why you are here** - Whether it is for dreams, grand research vision, or potential good job opportunities on the market, you *really* think it over and be committed to it.
 - You have a **strong motivation** to explore, hoping to contribute something valuable to the community. As a result, **never give up** when setbacks happen to you in research (as they are quite often..), and **keep positive**¹!
 - You act on the responsibility to yourself and your colleagues.
2. (Top-tier) Publications are preferred, but not a must.

Openings

- Our lab plans to recruit **2~3 Ph.D. students, and several M.S. students, for 2025 Fall.**
- Starting in 2024 Summer, we have **many paid visiting research intern positions** (*esp.* for those who plan to join our lab). The expected visiting time is **2~3 months**.

How to Apply?

- Send me an email² at wanghuan@westlake.edu.cn, attaching
 - **your CV** (including, if any, your personal webpage, Gitbub link, Google scholar, etc.),
 - **your transcripts**,
 - and other materials that you think can uniquely tell your story.
- We shall arrange an **online interview** (actually, it's a pretty chill chat) to see if it is a good match for us to work together. You shall present your research work, and I shall ask questions about it. After that, you will have the chance to ask me questions.
- It is advised to apply early.

¹ Okay, being negative for a while is actually [not that bad](#) :-)

² Due to workload, please understand that I am not able to reply to every email.