To Prospective Members

last update: 2025/1

If you are looking for a position in our lab, please read the following instructions carefully.

Position Types / Openings

- **PhD** - PhD student (no positions anymore for 2025 fall)
- **Visiting** - visiting student (if you are currently a student in a university and want to visit our lab temporarily, like 3 - 6 months, this is probably what you want)
- **RA** - research assistant (this is a full-time job for at least 1 year)
- **Postdoc** - (this is a also full-time job for at least 2 years)

Self-Introduction

My name is **Huan Wang** (王欢, he/him/his). I am a **Tenure-Track Assitant Professor** at **Westlake University** (Hangzhou, China), **principal investigator (PI) of ENCODE Lab** (Efficient Neural Computing and Design Lab, "高效智能计算实验室" in Chinese). 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.** Welcome to check my webpage for more information.

Lab Introduction

- **General background.** Westlake now has 4 schools. I am in the **School of Engineering**, which has 6 programs. I am with the **Artificial Intelligence and Data Science (AI) program**. We are dedicated to achieving influential innovations in theories and applications of various AI sub-fields, aiming to cultivate the next generation of global leaders through inspiring research projects to motivate their professional development.
- **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*;
    - 3D 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, with the consideration of hardware and system conditions.
    - (please refer to my webpage for more details of my past research directions.)
- **Advising style and lab culture.**
    - I am pretty **hands-on.** I'll regularly meet with students, 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** (A100 clusters of Westlake, lab-owned A6000, 4090, *etc.*). Also, we have collaborations *w.* industry, which also offers computing support.
    - **For visiting students**: We prefer **on-site** visiting students (there are very few positions for online visiting for exceptional students). Competitive compensations will be provided to help you rent a room near campus and cover most of your daily expenses (like dining on campus).

Qualifications / What Kind of Students We Prefer

1. The prospective students are encouraged to be a "三好学生" ("Merit Students"), 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. Familiar with typical deep learning backbones like resnets, transformers.
    - **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 are **strongly motivated** to explore, hoping to contribute something valuable to the community. As a result, **never give up** when research setbacks happen to you (as they are quite often), and **always stay positive**[1].
        - You act on the **responsibility** to yourself and your colleagues.
2. (Top-tier) Publications are preferred, but not a must.

How to Apply?

Please follow the following instructions exactly - very important.

- 1.1 Send an email[2] to wanghuan@westlake.edu.cn, attaching
    - **your CV** (including, if any, your personal webpage, GitHub link, Google Scholar link, *etc.*),

[1] Okay, being negative for a while is actually not that bad :-)
[2] Due to workload, please understand that I may not be able to reply to every email.

    - **your transcripts** (with all your past education experiences, e.g., if you are a master student, please attach both your master's and bachelor's transcripts.),
    - and other materials (*e.g.*, award certificates) that can uniquely tell your story.
    - Pay attention to your **email subject**:
        - For Chinese: `应聘<岗位>-<姓名>-<学校>`
        - For others: `Apply for <position>-<your_name>-<your_university>`

      Fyi, the position should be one of the 4 available types: PhD/Visiting/RA/Postdoc.

- 1.2 Please fill in this table about some important questions.

- 2. After selection, there will be two rounds of online interviews:
    - 1st round: interview with PI
        - **30 mins**; slides to cover the past experiences are strongly recommended.
    - 2nd round: research talk in the group
        - **45 mins** to talk about your past research + **15 mins** QA. For junior students, if you do not have publications, we shall choose a series of papers (<= 3 papers) for you, then the talk is to present those papers based on your best understanding.
        - Existing members in our lab will be your audience and give comments regarding the presentation. *All the comments will be considered to decide whether we issue the offer.*
        - The preparation period for this talk is typically 1 week ~ 2 weeks.