Yidi Zhang

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Education

Zhejiang University, Chu Kochen Honors College   Sep 2022 -
Bachelor of Science, Computer Science and Technology   June 2026(Expected)

- GPA 4.13/4.30 Average Score 91.50/100
- **Coursework:** Mathematical Analysis I(H) (100/100), Linear Algebra II(H) (99/100), Computer Graphics (92/100), Image Analysis and Artistic Processing (97/100), Introduction to Natural Language Processing(97/100), Advanced Data Structures and Algorithm Analysis(94/100), Computer Organization and Design (93/100), Data Modelling and Analysis (95/100)

University of California, Berkeley   Jan 2025 –
Visiting Student   May 2025 (Expected)

Experience

ZJU3DV Zhou Lab, Zhejiang University, China   Aug 2023 – Present
Research Intern

- Advisors: **Prof. Xiaowei Zhou** & **Prof. Sida Peng**
- Gained knowledge in 3D vision through coursework, including ML 4360, CS231n, and EECS 498-007.
- Learned and mastered state-of-the-art techniques such as NeRF, 3DGS, and Splatt3R, gaining a deep understanding of their applications in advanced 3D scene reconstruction.
- Work on 4D Gaussian Splatting :
  1. Enhanced the optimization framework of 4D Gaussian Splatting by incorporating depth-aware supervision to refine spatio-temporal consistency and geometric fidelity in high-dimensional scene representations.
  2. Working on improvements to enable efficient streamable rendering to enhance high-performance scene reconstruction and enabling scalable rendering with reduced memory usage.

EncodeLab, Westlake University, China   June 2024 – Nov 2024
Research Intern

- Advisors: **Prof. Huan Wang**
- Engaged in learning and research on generative models and multimodal approaches, focusing on advancing representation learning and cross-domain integration for complex tasks in computer vision and beyond.

Projects

Comprehensive Learning Notebook   note.zhangyidi.tech

- Developed a personal learning notebook covering a wide range of topics, including computer science courses, computer vision tutorials, and other technical content.
- Built and hosted the platform using **MkDocs**, enabling organized documentation for continuous learning.

Library Management System (Frontend)   github.com/sorceressyidi/ZJU-CS-Coursework

- Designed and developed the frontend interface for a library management system, implementing user-friendly features for book cataloging, borrowing, and account management.
- Tools Used: C++, Java, Vue3

Chain-of-Thought Reasoning with Large Language Models, Group Project   github.com/sorceressyidi/CoT

- My responsibilities: I participated in the design and coding of all three methods mentioned below.
- Developed and implemented innovative techniques including Multi-vote, LoRA fine-tuning, and Multi-path step-aware inference to enhance reasoning and problem-solving capabilities.
- Tools Used: Python, Pytorch

miniOS: Operating System Development

- Developed a minimal operating system through a series of labs, implementing key functionalities including a custom bootloader and kernel initialization, memory management, process scheduling and context switching, filesystem design , and device driver integration.
- Tools Used: C++, RISC-V assembly

Skills

Proficient in: Python, C/C++, Verilog, Unix/Bash, Git, RISC-V assembly

Familiar with: Javascript(React Framework), HTML, Java

Frameworks/Libraries: PyTorch, OpenCV, NumPy

Languages: Chinese (Native), English (TOFEL:104 CET-4 692)

Tools/Software: Colmap, MeshLab, LaTeX, Windows/Macos/Linux

Awards

Zhejiang Provincial Government Scholarship — Fall 2023
Awarded by Ministry of Education of Zhejiang, Top 2% — Zhejiang Province, China

Scholarship for Exceptional Students in Fundamental Subjects — Fall 2023
Awarded by Zhejiang University, Top 10% in my department — Zhejiang University, China

First-prize Scholarship of Zhejiang University — Fall 2024
Awarded by Zhejiang University, Top 2% — Zhejiang University, China