

ZHIYI WANG

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EDUCATION

ShanghaiTech University, Shanghai, China

Aug. 2020 — Jun. 2024 (expected)

- *Status:* Bachelor of Engineering Candidate in Computer Science and Technology
- *GPA:* GPA 3.5/4.0.

EXPERIENCE

Research Assistant, ShanghaiTech Vision and Intelligent Perception Lab (SVIP LAB) 🔗

Vision. PI: Prof. Shenghua Gao 🔗

Mar. 2021 — Present

- Exploring an audio-driven NeRF head avatar, with the aim of achieving a credible 3D reconstruction of a personalized face, while also producing a parameterized head model for further refinement. This project is currently under extensive investigation.

PROJECTS AND LABS

Pixmath

Nov. 2022 — Jan. 2023

A math formula recognizer designed as the final project of Deep Learning (CS280)

- Aiming to recognize math formulas in images rendered by \LaTeX engine back to \LaTeX code.
- Used a CNN-GRU pipeline with attention mechanism.
- Capable of attaining a 25% accuracy rate and a word error rate (WER) of 25% on the CROHME 2013 test set.
- Yields credible recognition outcomes for inline cases.

Realistic Smoke Rendering

Dec. 2022 — Jan. 2023

A renderer supports both surface and volume rendering designed as the final project of Computer Graphics (CS171)

- Implemented basic Monte-Carlo *Path-Tracing* for surface rendering.
- Implemented sampler with *Delta-Tracking* and transmittance estimation with *Ratio-Tracking*, in addition to their integration with surface rendering.

Computer Vision I:

3D reconstruction from multi-view geometry; Image stitching; Image classification with BoW and SVM; Depth estimation using ResNet; Image inpainting with Mean shift and GAN

Computer Graphics I

Soft-Rasterizer; Bezier & B-spline surface; Path-Tracing with Direct & Indirect Lighting; Mass-Spring System;

& GAMES101 :

ML basic; Neural Network modules; RNN & LSTM; Generative Adversarial Networks

Stanford CS231n:

HONORS AND AWARDS

2nd Prize, Certified Software Professional Senior (CSP-S)

Nov. 2019

2nd Runner up, Gold Medal, etc, iGEM 2021

Nov. 2021

SKILLS

- **Programming Languages:** Fluent with Python and C/C++
- **Developing Skills:** Pytorch, Arch Linux, Neovim, Git, Bash, \LaTeX , i3wm,

MISCELLANEOUS

- **GitHub:** <https://github.com/Aiedails> 🔗
- **Languages:** English; Mandarin, Native speaker