# XINYI ZHOU

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# Education

### University of Southern California

January 2023 – Present (Expected December 2024)

Master of Science in Computer Science (General) 4.0/4.0

Los Angeles, United States

### Southern University of Science and Technology

September 2018 - July 2022

Bachelor of Engineering in Computer Science and Technology 3.75/4.0

Shenzhen, China

## Work Experience

#### AI Engineer and Researcher | UBTECH | Shenzhen, China

May 2023 - Present

- Leveraged Deepspeed to optimize training and inference processes for the Vicuna on a V100 GPU cluster.
- Utilized prompt engineering techniques to collect an empathetic conversational dataset.
- Applied the LoRA technique to finetune the Vicuna model, enhancing its empathy recognition capabilities and provide a more natural conversational experience for users.

#### Research Assistant of Dr.Luo Tao | SUSTech | Shenzhen, China

August 2022 - December 2022

- Individually developed MR/VR demos using Unity for HoloLens2 and Oculus Quest2 for HCI experiments.
- Designed HCI experiments to test the efficiency and user satisfaction level of our new MR/VR user interfaces.
- Developed Python scripts for user data collection and analysis.
- Analyzed semi-structured interviews about IxDL language's application in industry.

Front-End Developer Intern | Shenzhen Weijie Technology | Shenzhen, Guangdong

March 2022 – June 2022

- Developed the front-end of a WeChat mini application of Murder Mystery Game grouping for iOS and Android platforms using Vue.js and the UniApp framework.
- Implemented custom features such as sliding date selector, Apple-style blurry image background, etc.
- Collaborated with designers, backend developers, and testers on UI design, server-side API design, and code maintenance.

#### Research Assistant of Dr.Liu Jiang | SUSTech | Shenzhen, Guangdong

**September 2019 – June 2022** 

- Collected a dataset of 3718 images and developed a CNN network for ophthalmic surgical microscope image defocusing.
- Applied as the primary investigator for the funding of National College Students' Innovative Entrepreneurial Training Plan Program (Grant No.202114325010) successfully.
- Published a first-author paper of Retinal Microsurgery multi-focus image fusion on ISBI 2022.

#### Publication

Xinyi Zhou, Louying Hao, Qiushi Nie, Yingquan Zhou, Lihui Wang, Yan Hu\*, Jiang Liu, A Novel Multi-focus Fusion Network for Retinal Microsurgery, IEEE International Symposium on Biomedical Imaging (ISBI) 2022

### **Projects**

#### Cross-Browser Differential Testing for WebAssembly Website on Mobile Browsers January 2023 – April 2023

- Conducted literature review on layout differential testing on WebAssembly websites.
- Implemented the screenshots comparison module on mobile emulator browser crawler using TypeScript and PixelMatch.
- Tested 1568 WebAssembly websites on Android Emulator and found 43 URLs with cross-browser layout discrepancies.

### Color Correction WeChat Mini Program | Developer, Project Manager

February 2021 - May 2021

- Designed the functionality of this application to be demonstrating color-blind people's difficulties in recognizing objects by photo taking and color space conversion.
- Implemented the frontend and developed a JavaScript algorithm for color space conversion to generate images that demonstrate the world in color-blind people's eyes.

## Epidemiological Analysis of COVID-19 cases in Korea | Data Analyst

April 2020 – June 2020

- Visualized the distribution of patients, spread of disease geographically to understand the development of the pandemic with Python.
- Classified Korean cities by epidemic risks of their population through KMeans to provide insights for control measures.
- Predicted patients' recovery time and epidemic trend with regression analysis and the SIR Model for Spread of Disease.

#### Honors

## **Outstanding Graduate Student Award**

June 2022

Southern University of Science and Technology

## The First Class (Top 5%) of Merit Student Scholarship

Oct 2021

Southern University of Science and Technology

#### Technical Skills

Languages: Python, C#, JavaScript, Java, HTML/CSS, C++, SQL, Mandarin(native)

Technologies/Frameworks: Vue.js, UniApp, Unity3D, PyTorch, Deepspeed, GitHub, Prompt Engineering