XINYI ZHOU

Graduate Student · Computer Science

Education

University of Southern California

Master of Science in Computer Science (General)

Los Angeles, United States

January 2023 - Present

Southern University of Science and Technology

September 2018 - July 2022

Bachelor of Engineering in Computer Science and Technology

Shenzhen, China

Relevant Coursework

- Data Structures
- Algorithm Design and Analysis
- Computer Networks
- Operating Systems
- Computer Organization
- Principles of Database Systems
- Deep Learning
- Software Engineering
- C/C++ Program Design
- Object-oriented Analysis and Design
- Testing in WebAssembly

Ecosystem: From Development to Deployment (Spring 2023 at USC)

• Analysis of Algorithms (Spring 2023 at USC)

Experience

Southern University of Science and Technology's School of Design

 ${\bf August~2022-December~2022}$

Shenzhen, Guangdong

Research Assistant of Dr.Luo Tao

- Individually developed Virtual Reality demos using Unity for HoloLens2 and Meta's Oculus Quest2 for experiments.
- Engaged in designing user-based HCI experiments to test the efficiency and user satisfaction level towards our new Virtual Reality user interfaces.
- Developed scripts for user data analysis using Python.
- Assisted in the collation and analysis of semi-structured interviews about IxDL language's application in industry.

Shenzhen Weijie Technology

March 2022 - June 2022

Front-End Developer Intern

Shenzhen, Guangdong

- Assisted in the development of the front end of a WeChat mini application for iOS/Android using Vue.js and the UniApp framework.
- Collaborated with team members using version control systems such as Git to organize modifications and assign tasks.
- Utilized WeXin DevTools as a development environment in order to visualize the application.

Southern University of Science and Technology

September 2019 – June 2022

Undergraduate Student advised by Dr.Liu Jiang

Shenzhen, Guangdong

- Conducted research projects related to Intelligent Medical Imaging and published a first-author paper.
- Applied successfully for the funding of National College Students' Innovative Entrepreneurial Training Plan Program (Grant No.202114325010) as the primary investigator.
- Worked as the student teaching assistant for two courses: Introduction to Artificial Intelligence (2021) and Multimedia Information Processing (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

JsonPath Code Contribution | Java Developer

February 2021 - May 2021

- Conducted reverse engineering to understand the components of the project.
- Fixed two reported issues that passed the code review, the solutions were merged into the next release version.
- Pull Requests: https://github.com/json-path/JsonPath/pull/711, https://github.com/json-path/JsonPath/pull/693

Color Correction WeChat Mini Program | Developer, Project Manager

February 2021 - May 2021

- Designed and implemented the UI to demonstrate the difficulties that color-blind people face in recognizing objects.
- Developed a high-speed algorithm for color space conversion to generate images that demonstrate how color-blind people see the world.

Game Platform Website | Front-end Developer

September 2020 – December 2020

• Designed and implemented the UI of a website acting as a platform for game demonstration, downloading, and commenting using Vue.js.

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.
- 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.

Wheelchair Acceleration Device for Elder People | User Research, Material Engineer

June 2019-July 2019

- Conducted user research through field trips to nursing houses and questionnaires to understand elder's needs and opinions for present wheelchairs and determine the product scope.
- Selected the suitable materials for implementing the device to ensure user safety and comfort.
- Presented a usable demo that can be easily attached to wheelchair for acceleration and unloaded to recharge.
- Won the Best Team Work Award in Da Vinci Challenge Camp 2019.

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#, HTML/CSS, JavaScript, Java, C++, SQL

Developer Tools: VS Code, Visual Studio, Jupyter Notebook, IntelliJ IDEA, PyCharm

Technologies/Frameworks: Vue.js, UniApp, Unity, PyTorch, GitHub