

# Xuedan Zou

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Lushan Road(S), Yuelu District, Changsha, China

## Education

**B.E. Hunan University**

**2016 fall-----2021 Spring**

**GPA: 3.58/4.0**

**Industrial Design Major**, School of Design

**Finished**

**Computer Science Second Major**, College of Computer Science and Electronic Engineering

**Ongoing**

●**Main Related Courses:** User Centered Design, Design Thinking, Design Research, Design Expression, Advanced Programming, Data Structure, Algorithm Analysis and Design, Operation System, Artificial Intelligence, Digital Image Processing, Computer Graphics, Computer System, Database System

## Skills

Proficient in C++, C, Python, Processing, Arduino, P5.js, openFrameworks and OpenCV

Familiar with Adobe Photoshop, Adobe Illustrator, Adobe Premiere Pro, Rhino and Keyshot

Good teamwork ability, design research ability(Persona, Usability Test, Interview, Card Sorting, Storyboard, Experimental Research) and human-centered design ability(Interaction Design, Sketches, Wireframes, User Flow, User Journey, Information Architecture)

Native speaker of Chinese, proficient in English, basic knowledge of Japanese

## Project Experience

**Worm---a game**

**Spring 2019**

- Developed an interactive game for web based on P5.js with the idea of creative coding.
- Tested the game on an art exhibition of the university based on design research methods and then improved the user experience.

(This project is officially shared by p5.js group on their Instagram page)

**Robot Design (Workshop with Georgia Institute of Technology)**

**May 2019**

- Developed an easy platform to control the robot based on Processing.
- Built a prototype of robot based on Arduino.
- Researched the imperfect points of current robots and summarized ways to improve the user experience based on those points. Designed the outlook of robot based on design thinking and hand sketches. Designed GUI, VUI, AUI and MUI of the robot under specific circumstances.

**PIXEL**

**Spring 2020**

- Developed an interactive light system based on simple gesture recognition based on Kinect, coded in C++ with openFrameworks.
  - Worked with the circuit engineers and structure engineers to design the LED board screen.
  - Designed a set of simple gestures to interact with the screen and the topic to printed on the screen.
- (This project was exhibited on Asian New Generation Design Exhibition(2020) online)

## **Positions**

### **Lab Internship**

**Fall 2019**

*Interactive Computing Lab at Hunan University, Supervisor: Shizhe Zhou*

Read some related papers, especially the paper ‘A Mixed-Initiative Interface for Animating Static Picture UIST2018’. Developed a software to detect the objects and remove them from the background interactively and automatically, based on OpenCV and C++, with the main algorithms K-means, Grabcut and Patchmatch.

### **Research Assistant**

**Summer 2020**

*Image Processing Lab at Hunan University, Supervisor: Hongli Lin*

Helped the professor to build a self-designed poster system using deep learning. Used Tensorflow and Python 2.7 to build the neural network. Summarized ways to help designers designing posters including the aspect of chosen elements, the color, and the layout design.

## **Publication and Patent**

[1] Zou X. PIXEL: Interactive Light System Design Based On Simple Gesture Recognition[J]. arXiv e-prints, 2020: arXiv: 2010.10180.

[2] cn 202022453196.3 An Interactive Light System Based On Mixed LED Pixels. Utility model patent in China

## **Awards**

**Chinese Physics Olympic** (First Prize in Sichuan Province)

Jan 2016

**Starlight Bicycle Light Design** (Excellent Prize)

June 2018

**ICM** (S prize)

Mar 2019