

Zhu Clever

Zhu Clever is an art group formed by **Zhengyang** and **Zhengzhou Huang**, the twin artists, along with a digital *Pig*, their creative agent. Once a shared plushie for years, the *Pig*, now 3D modeled, acts in many of their works.

About

Zhengzhou & Zhengyang Huang

We are Zhengyang and Zhengzhou Huang, a twin artist duo from Chongqing, China and currently based in Los Angeles. We create to reimagine our relationship with the ever-evolving digital technologies. Using mediums such as animation, game, web, and physical objects, we create stories, interactive applications, speculative designs, and alternative technologies. Essentially, our work joins the never-ending effort to create interfaces and channels that bridge the emerging digital phenomena with tangible experiences. Recently, we are developing a project about being a twin with AI, with research on simulations and data representations in machine intelligence.

We have shown our most recent works at AT HOME, IKEA Residency Closing Show, Fermynwoods Contemporary Art, Society for Literature, Science and the Arts at University of Michigan, Plicnik Space Initiative and University of California, Los Angeles.

2023

Fire

Medium: Plywood, Laser Etching,
3D Demo made with Unity3D, Website

Game Download: [Windows](#) / [Mac](#)
Web: Obuo.github.io/fire/
Video Documentation: vimeo.com/945448901

Fire is a speculative project introducing a GPU kit made of wood for AI training, in a future where mineral-based GPUs are scarce. *Fire* GPU kit consists of wood panel sets etched with AI model algorithms and training data. *Fire* imposes a unique constraint on GPU technology and AI training: each kit can only 'burn' once, with the amount of wood burned determining the data the AI can learn. This project emphasizes the need for meticulous data usage in extensive AI training.

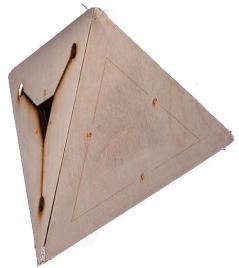
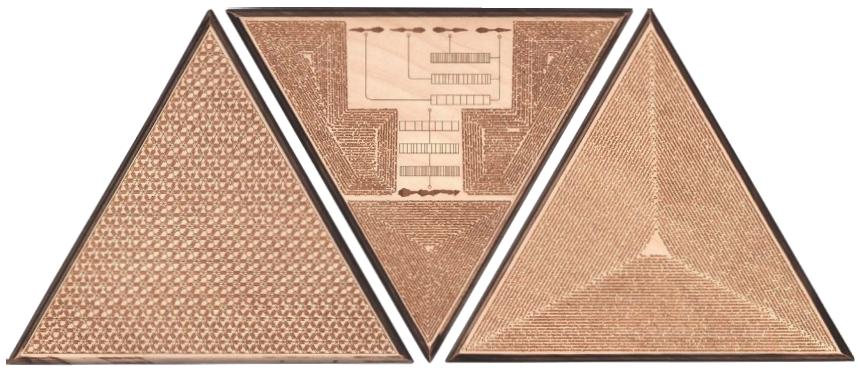
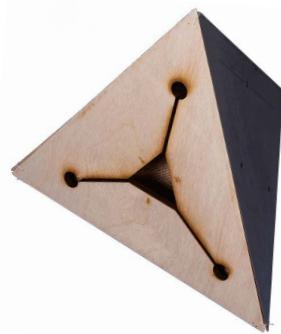
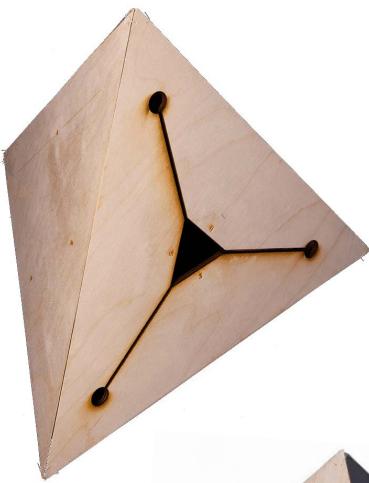
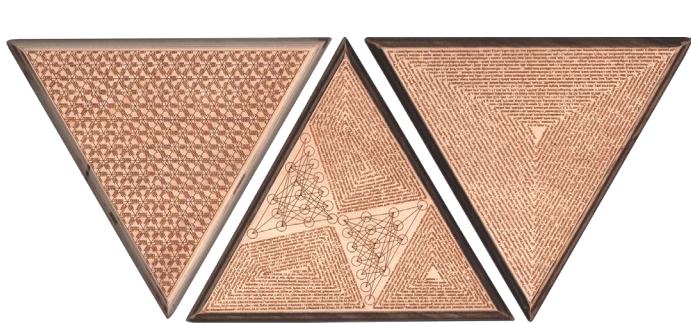
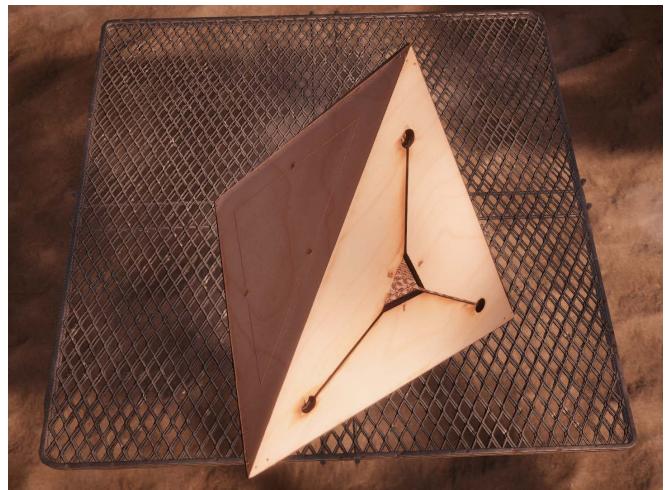
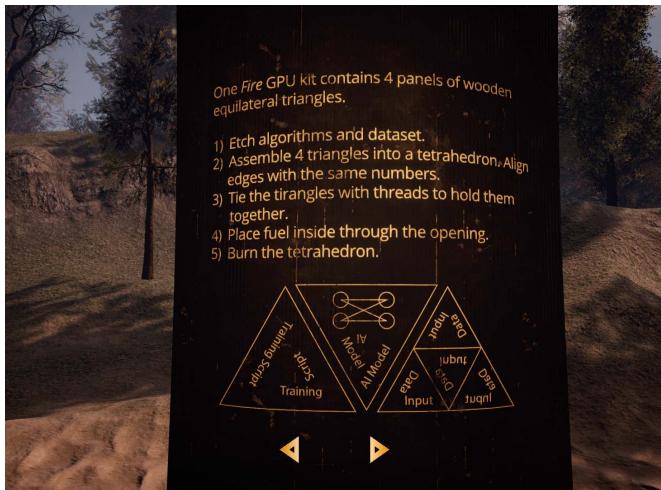
Fire is presented as physical objects, an interactive demo and a product website to showcase the whole process of using *Fire* GPU kits.



Screenshots of Interactive 3D Demo



Screenshots of Interactive 3D Demo



Physical Fire GPU Sets

2021

Water

Medium: Website, Performance, Illustrations, Water, Aluminum Foil, Metal Mesh, Electronics

Web: nuobh.github.io/

Video Documentation:

vimeo.com/913215865

Water is a speculative project, designing an alternate data storing and sharing method using water. This project is inspired by the homeopathic practice of “Water Memory” in which people researched and believed that water carries and transmits information, including emotion. Our project imagines an unstable data-structure existing between the volatile liquid molecules. Water introduces an ambiguous and physical interface with data, exploring new relationships with one’s own data.

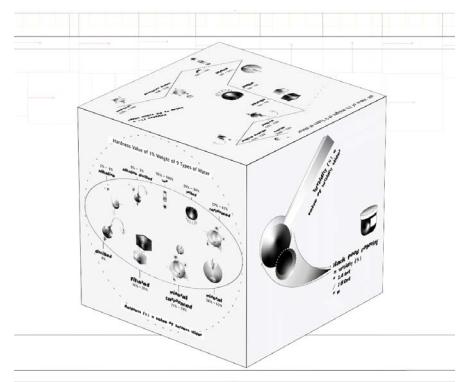
This project consists of performance videos, participant involvement, and a documentation website. We documented the entire performance on how to transfer data from a regular USB drive into water and how we prevented the data being polluted with noise signals during the process.

Here are the 5 steps of data transfer:

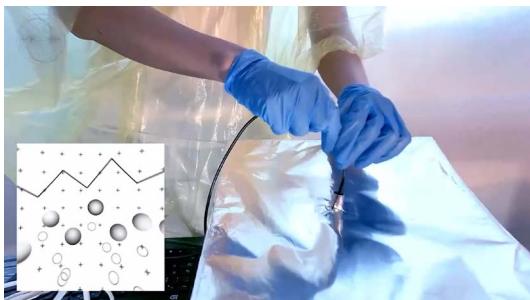
(1) Clean equipment



(2) Select types of water as a storage base for data transfer



(3) Set up equipment including double faraday cages, wire clips, a container, and a USB drive



(4) Transfer data to water with the help electromagnetic radiation



(5) Store data-infused water in the freezer



Participants' Documentation

We invited participants to transfer their data into water. They sent us their data on USB drives, and after completing all five steps, we returned the final frozen water to them by mail.



2023

Video Work:

Digital Twin - Freshly Produced

vimeo.com/913218049

GAN Animation

shorturl.at/5mXUn

Digital Twin Series

Initial Experimentation & Character Design

Digital Twin is a project series we initiated in 2023. It started with designing a digital piglet character modeled after a childhood pig plushie we shared growing up as twins. The pig, personified as a “third twin”, explores the parallels between the twinning process experienced by ourselves and the learning process of AI adapting to users. Having researched concepts and algorithms of AI training, we began to see the user-AI relationship as a cycle of reincarnation: users generate data, which is analyzed by AI to offer personalized predictions, bringing the AI closer to users. It can be said that:

Data, Context, Feedback

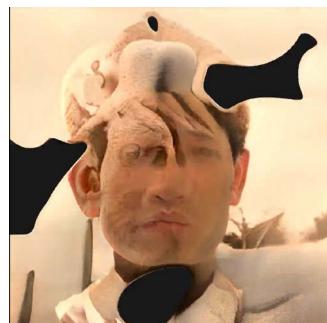


Users ≈ AI

In a series of projects, the pig will enact and embody this user-AI / user-data twinning relationship. Ultimately, Digital Twin explores the interconnectedness of individual moments and public memories, pooled from datasets, analyzed by AI, and personalized by us.



Character Design



2024

Secondhand Life

Digital Twin Series

Medium: Unity Game Engine, ChatGPT-4,
Stable Diffusion, Text-to-Speech

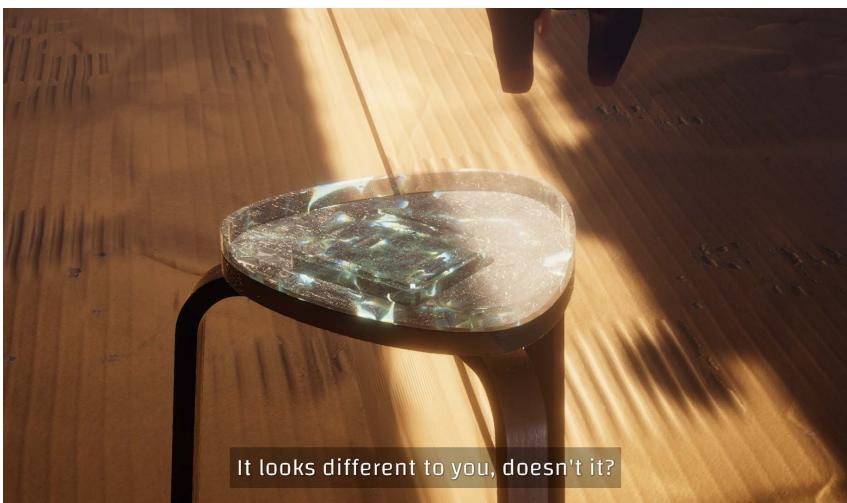
Game Download:
[zhuclever.itch.io/
secondhand-life](https://zhuclever.itch.io/secondhand-life)
Video Documentation:
vimeo.com/950610237

Secondhand Life is a game collaborated with Wendy W Fok's research "Live With Data," where data servers are integrated into furniture, bringing people closer to data.

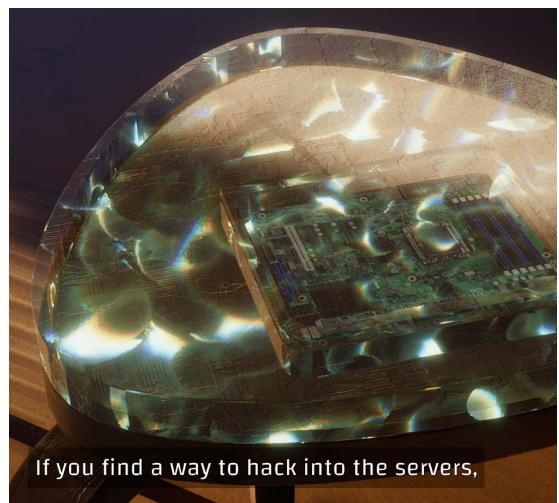
Secondhand Life imagines a future where this furniture is sold in secondhand markets. In the game, you play as a secondhand furniture collector who acquires these pieces, hacks into the data servers, and lives vicariously through the former owner's data. *Secondhand Life* explores not just acquiring secondhand furniture but also secondhand data. Essentially we ask:

- How much do we truly own our data?
- Is physical access to our data important?
- To what degree can we own others' data?
- How much does data shape our life stories and vice versa?





It looks different to you, doesn't it?



If you find a way to hack into the servers,



I ride the monorail a lot,



Installation Photos



2024

Video Excerpt:
vimeo.com/913213044

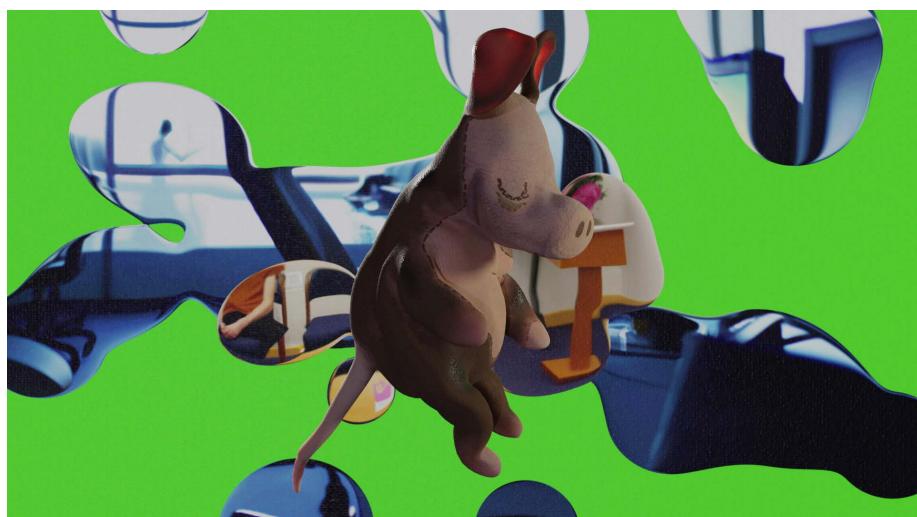
Our Agent

Digital Twin Series

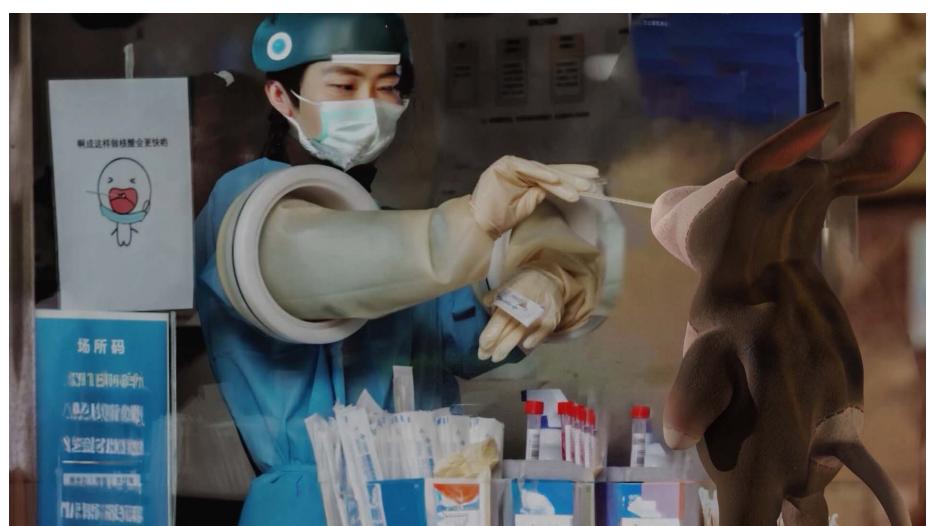
Medium: 3D Animation

Our Agent is a work-in-progress project created during China's COVID lockdown, amidst online/offline protests and our personal dilemmas including visa sponsorship, familial expectations, career paths, romantic relationships and closeted identity. In this video project, the digital pig serves as a surrogate intelligent agent to experience possible life events on our behalf, such as lockdowns, career changes to become a programmer, artist fame, elopement marriage, coming out, and ambivalent family gatherings.

Each life event is generated by OpenAI DALLE, drawn from the mass datasets. The video story presents "the agent" as a product you can choose to live certain life moments for you through AI generated scenarios. Ultimately, the digital pig becomes the acting agent for all of us whose lives were fed into AI generative models.



Video Stills



2020

Video Documentation:
vimeo.com/913370819

Pigxell

Medium: Unity Game Engine

Pigxell is a combination of performance and online game, where players purchase digital furniture to decorate virtual spaces. Here, creativity knows no bounds as players curate their virtual abodes with a plethora of decor options. In a departure from conventional lifestyle games, Players must trade personal images of their body parts (eyes, nose, ears, mouth, hands, feet) with the seller “pigxell” to acquire corresponding furniture. *Pigxell* challenges players to re-examine the concept of ownership and privacy under a system designed for greedy data collection.

