

# CHANGBAI LI

## 李唱白

AI RESEARCHER | CREATIVE TECHNOLOGIST |  
SOFTWARE ENGINEER

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### RESEARCH INTEREST

Ensure AI develops and deploys capabilities in a controlled manner, by studying how adversarial failures develop during training.

Understand the interaction dynamics that lead to human over-reliance on AI, and identify harmful settings.

### WORK EXPERIENCE

Cofounder, stealth startup, 2022 - now

Early-stage startup. Inventing a new UX paradigm that leverages prediction and generative interface technology to automate workflows and augment human cognition.

Lead Web Developer, The Treacherous Turn, 2022

A research-supported tabletop RPG about AI risk. Responsible for developing a bespoke companion web app that facilitates gameplay, an efficient marketing website, and managing freelance developer & UX designers. Part of AI Safety Camp 2022.

Partner, HYPERSCREEN, 2020

Cofounded HYPERSCREEN, an online art platform hosting music performances in virtual reality and offline simultaneously.

Creative Technologist & Staff, Xinchajian, 2019 - 2022

Provided technical expertise and creative input on installation art, interactive visualization, and web development. Managed Xinchajian hackerspace's day to day operation alongside a team of volunteers.

Technical Consultant, IFCREATE Education, 2019

Oversaw design and development of interactive courseware for machine learning education.

Software Engineer, Helios Interactive, 2015 - 2018

Developed interactive installations and experiences using a variety of technologies, including gesture recognition, machine learning, augmented reality, and virtual reality.

Selected Clients: Visa, Nike, NFL, Lenovo

### EDUCATION

MS Computer Science & AI  
Oregon State University  
Expected Graduation: May 2026

BS New Media Interactive Development  
Rochester Institute of Technology  
Class of 2015

### TEACHING

Maker workshops, Xinchajian, 2019-2022

Indie Game Production &  
Kinect Game Development, OF COURSE, 2019

### TALKS

Neuroxity Open Source Developer Conference, 2021

Survival Guide for The Slash Generation

Popular Science Product Expo 2019

A Brief History of Internet Art and Games

Pechakucha Shanghai 2019

A Creative Life: Making a Living out of your Passion

Hardware Massive Shanghai 2018

Turning a Skateboard into a Turntable

### SOFTWARE SKILLS

**Web Development:** Vue.js, React, Express, Firebase

**3D Development:** Unity3D

**Machine Learning:** Jupyter Notebook, fast.ai

**Visualization:** D3, Observable

**Graphics Programming:** GLSL, three.js, p5.js, Unity Shadergraph

**Software Project Management:** git, Scrum framework

## PROJECTS

### **The Treacherous Turn - Alignment Tabletop Role Playing Game**

Developed from AI Safety Camp and mentored by Daniel Kokotajlo, The Treacherous Turn is a simulationist tabletop RPG aimed at promoting awareness for AI Risk. The game bases its scenarios on different stages of AGI takeoff.

Changbai is responsible for designing and developing the companion multiplayer web app, and the marketing website.

### **Lenovo Neural Style Portrait**

For the Lenovo Yoga Book launch, Helios developed an installation that converts guest photos to stylized portrait paintings using neural network.

Changbai was responsible for developing the localized server with photo processing and learning pipeline, as well as an interface for the designers to iterate and find the ideal styles.

### **Zombox - Multiplayer Demonstrative Learning**

<https://changbai.li/zombox>

Zombox is an experimental game environment that uses machine learning as the game mechanic, by having players perform the role of a supervisor.

The agents learn to accomplish their objectives by observing and learning from the player's demonstration using a proprietary Demonstrative Learning algorithm.

The subsequent paper, "Exploring the Use of Machine Learning as Game Mechanic: Demonstrative Learning Multiplayer Game Prototype", was selected for IEEE 2020 MIPR Alart workshop.

### **HYPERSCREEN Vol.3: Diaspora**

<https://hyperscreen.world/events/diaspora/>

For this virtual performance, HYPERSCREEN connected artists and musicians from Taiwan and France to the offline venue in Shanghai, by presenting their live performance on a custom-built world, on the virtual reality social platform VRChat. The world consists of multiple sonic sculptures and two stages for different parts of the performance.

Changbai was responsible for all technical aspects of the online performance, including virtual world development; porting of the sonic sculptures; and streaming setup.