

# YUTONG ZHU

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## EDUCATION

<b>Royal College of Art, School of Design (Top-ranked in QS Art &amp; Design for 11 years)</b> Master of Design, MDes	London, United Kingdom Dec 2024 - Jun 2025
<ul style="list-style-type: none"><li>• Majoring in Design Futures</li><li>• Core Courses: Core Courses: Interdisciplinary Research Methodologies (15 credits), Complex Systems (15 credits), Envisioning Futures (15 credits), Research Proposal (15 credits), Research Development and Reflection (15 credits), Realisation (30 credits), Entrepreneurship (15 credits)</li><li>• Final-year project: Co-Cerebral Learning Future Designing for agent-centered collective intelligence environment in higher education 2050</li></ul>	

  

<b>Sichuan Fine Arts Institute, School of Design (Top 8 Fine Art Institute of China)</b> Bachelor of Art, BA	Chongqing, China Aug 2020 - Jun 2024
<ul style="list-style-type: none"><li>• Distinction (both SCFA &amp; Chongqing Province)</li><li>• GPA 95/100, Ranked 1/36, Majoring in Digital Media Art</li><li>• Core Courses: Information Interaction and Conceptual Design (95), Graduation Creation/Design (95), Professional Investigation (93), Cultural Research and Conceptual Exploration (93), Thematic Design 2 (93)</li><li>• Thesis: Poetic Form of Song Rhythm: Chinese Ancient Poem Creative Visualization Design Based On Generative AI 3D Content</li></ul>	

## PUBLICATION

### Conference Paper:

- Zhu, Y., Zixiang F. (2025). *Speculative Design Meets AI: Exploring Creative Dynamics through Co-Speculative Workshops*. In Proceedings of the HCI International 2025, Late Breaking Work, LNCS 16346. Springer, Cham.
- Sun, H., Zhu, Y., & Duan, S. (2023). *Dynamic Classification Framework Based on Bio-Vitality*. CUMULUS Conference: Narratives of Love.

### Patent:

- **Design Patent:** *Brainwave Feedback Training Toolkit*. Inventors: Yutong.Z., Henyu.C.; Patent Number: ZL 202330579292.9 ; Date of Issue: July 30, 2020;
- **Design Patent:** *GUI Mobile Phone with Charging Station Theme Desktop*. Inventors: Yutong.Z., Feifei.S.; Patent Number: ZL 202230311711.6; Date of Issue: March 18, 2022;

### Poster & Demo :

- Zhu, Y. (*under preparation*). *Poetic Shapes: A Study on the Innovative Design of Digital Visual Poetry in Human AI Interaction*. Intended submission: AAAI Journal of New Art (AAAI, 2026).
- Zhu, Y. (*under submitted*). SprayScape: A Mixed Reality Platform for Graffiti Archiving, Attribution, and Cultural Preservation (CHI, 2026)
- Zhu, Y. (*under submitted*). Empowering, Not Replacing: Designing an Adaptive AI Agent Based on Six Thinking Hats to Enhance Student Agency and Critical Thinking (CHI, 2026)

## AWARDS AND PRIZES

### Scholarship:

- CSC Scholarship, 2024, Arts & Design Talent Development Special Program (200 candidate per year) , sponsored by Chinese Scholarship Council
- Scholarship of Academic Excellence(Top 10% 1<sup>st</sup> Class & Top 30% 2<sup>nd</sup> Class), 2021-2024, awarded by School of Design, Sichuan Fine Art Institute
- Provincial Outstanding Graduate(1/10), 2024, awarded by Chongqing Municipal Education Commission
- Distinction Graduate(Top 10%), 2024, awarded by Sichuan Fine Arts Institute
- Scholarship of Yuhai Design Scholarship(1st in Academic GPA), 2023, awarded by School of Design, Sichuan Fine Art Institute
- Excellent Student Cadre, 2021-2022, awarded by Sichuan Fine Art Institute
- Merit Student Scholarship, 2022, awarded by Sichuan Fine Art Institute

### Design Awards:

- *National College Design & Art Award* (1<sup>st</sup> Class), 2024, awarded by China Association of Higher Education
- *Red Dot Design Concept* (Finalist), 2023, awarded by Red Dot Association

- *International Design Award* (Silver & Bronze), 2023, awarded by IDA Association
- *European Product Design Award* (Top Design, 30%), 2023, awarded by EPDA Association
- *Spark Design Awards* (Student Winner, 30%), 2023, awarded by Spark Design Association
- *INTERNET+ Entrepreneurship Competition* (1<sup>st</sup> Class), 2022, awarded by China Association of Higher Education
- *National College Design & Art Award* (2<sup>nd</sup> Class), 2022, awarded by China Association of Higher Education
- *SCFAI Institution Prize* (53/2000), 2022, awarded by Sichuan Fine Art Institute
- *Outstanding Award*, 2022, awarded by SCFAI Exhibition Committee
- *Crossover & Integration New Media Art Contest*, 2021, awarded by Chongqing Association of Higher Education
- *Huawei Atlas Phone OS and Watch Face Design Award*(First Prize), 2021, awarded by HUAWEI Co., Ltd.
- *Future Mobility Design Award* (Best Sustainability), awarded by Wutong Chelian (Beijing) Network Technology Co., Ltd.

#### **Exhibition:**

- “*Human-Machine Joint Lunar Mobile Research Station*” - **14th National Art Exhibition**, Selected for Exhibition in Beijing, Information & Interactive DesigHn Section, SCFAI Art Museum, Chongqing, China, 2024
- “*Intelligence-Calligraphy-Bamboo: AI-Generated Chinese Calligraphy Interaction Design*” - **14th National Art Exhibition**, Selected for Exhibition in Beijing, Industrial Design Section, SCFAI Art Museum, Chongqing, China, 2024
- “*Poetic Imagery in Shape and Charm - Ancient Poem Creative Visualization Design*” - **Technology, Art Creativity, and Artistic Productivity Exhibition**, Chengdu Art Museum, Chengdu, China, 2024
- “*Song Rhyme Poetic Form*” - **Graduation Exhibition**, SCFAI Art Museum, Chongqing, China, 2024
- “*Syncohe: The Wearable BCI Training Devicefor Esports Games*” - **Neuron Science Art Popular Science Exhibition**, Laboratory of Brain and Intelligence, Chongqing Brain Center, Chongqing, China, 2023
- “*Lunar Life Archive: Digital Narrative Web Design*” - **College Annual Exhibition**, Luo Zhongli Art Museum, Chongqing, China, 2023
- “*Metaverse Energy Station: Design*” - **Shenzhen Experience Design Association Young Designers UI/UX Special Exhibition**, Shenzhen, China, 2022
- “*BURN: Embodied Interactive Stereoscopic Projection*” - **College Annual Exhibition**, Luo Zhongli Art Museum, Chongqing, China, 2022
- “*BURN: Embodied Interactive Stereoscopic Projection*” - **Multi-Dimensional Vision Stereoscopic Projection Final Exhibition**, Huxi Art Gallery, Chongqing, China, 2022
- “*Stream*” College “*Rural Rebirth*” Sketch Exhibition, Huxi Art Gallery, Chongqing, China, 2021
- “*Stream*” OnePlus X Hasselblad Camera New Media Interactive Art Installation Pop-Up Exhibition, Chongqing, China, 2020

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## RESEARCH EXPERIENCE

### **Agent-Centered Future Education System**

Research Assistant, Royal College of Art (RCA) – Wicked Acceleration Lab & RCA AI Club

London, United Kingdom

Apr 2025 - Now

- Designed and prototyped three AI collaborative tools—Reframe, Reflect, and Rethink—to study human–AI cognitive co-reflection in higher education.
- Developed behavioral experiments testing six AI personas (Analyst, Empath, Critic, Optimist, Innovator, Conductor) to assess their impact on learning trust, autonomy, and reflection depth.
- Introduced bias-nudge mechanisms and explainable interaction strategies to mitigate over-reliance and strengthen ethical transparency.
- Co-authored paper “*Speculative Design Meets AI: Exploring Creative Dynamics through Co-Speculative Workshops*” (HCII 2025); exhibited at RCA Design Futures 25 EXPO.
- Advanced understanding of AI literacy, co-cognition, and critical collaboration within HCI and educational contexts.

### **“Bamboo Wind” & “Poetic Imagery and Shape Charm”**

Research Assistant, AI Creativity Lab, SCFAI & The Parsons, New York

Chongqing, China

Sep 2024 - Oct 2024

- Contributed to two stage-based projects exploring AI visualization of Chinese traditional culture.
- Bamboo Wind: Co-trained GAN models for calligraphic style transfer, transforming bamboo-leaf brushstrokes into font strokes; produced a generative bamboo-style font library, later exhibited at the Times Art Museum (Chongqing).
- Poetic Imagery & Shape Charm: Independently led AIGC text-to-3D translation pipeline, integrating ComfyUI, Diffusion models, and LLM-based semantic parsing to convert classical poetry into immersive visual sculptures.
- Developed custom semantic classification combining manual annotation + embedding vectors to better capture the “emotion–imagery–form” triad.
- Built dual datasets for text and imagery, aligned via semantic tagging, and fine-tuned a LoRA model to capture the emotion–imagery–form relationships.
- Publications: Research prepared for submission to AAAI; installations exhibited at Chengdu Art Museum and Luo Zhongli Art Museum.
- Gained deep understanding of Human–AI Co-Creation, exploring how designers evolve from “creators” to “collaborators” in intelligent systems.

### **EEG-Based Wearable Neurofeedback Device for eSports**

Research Assistant, Center for Brain Science and Art, Chongqing University

Chongqing, China

01/2024 - 06/2024

- Collected and labeled EEG data from 78 professional gamers to study attention and fatigue under high-stress competition.
- Conducted signal preprocessing, feature extraction, and data visualization; designed the interaction interface bridging neuroscience and user experience.
- Led experiments that enabled the prototype Syncuhe, a neurofeedback-based focus training system, recognized by Spark, EPDA, and IDA design awards.
- Tackled high-noise EEG environments via EMG/ECG denoising and adaptive filtering; proposed active stimulation design for fatigue relief.
- Designed an affective visualization interface linking EEG frequency bands to product light indicators, exploring neurofeedback as an active intervention concept.
- Conceptually integrated a tDCS-based neurostimulation module into the EEG product prototype to explore active intervention and fatigue relief.
- Strengthened capabilities in biometric data analytics, neural visualization, and human-computer interaction (HCI) design.
- Deepened insight into brain–computer interaction (BCI) as a two-way perception–feedback system connecting cognition, emotion, and adaptive interface design.

### **Smataste – AI-Driven Dining Experience System**

Research Assistant, Royal College of Art × Sodexo France – AiD Lab

London, United Kingdom

Jan 2024 - Jun 2024

- Researched AI's role in sustainable service ecosystems; co-designed an intelligent canteen interface using AI recommendation algorithms and multimodal feedback loops.
- Built the Smart Taste Index (STI) model analyzing taste preference and nutritional data; prototype deployed in Sodexo's internal canteen, improving satisfaction and meal turnover.
- Developed Explainable Interfaces and participatory feedback mechanisms for ethical transparency and user co-creation.
- Demonstrated how AI-driven interaction design can balance operational efficiency, emotional experience, and sustainability.
- Strengthened expertise in AI service design, data visualization, and ethical AI integration, forming the methodological bridge between experimental HCI and real-world business systems.

### **L4-Level Human–AI Co-Driving Cockpit**

Research Assistant, Chang'an Automotive × SCFAI Joint Lab

Chongqing, China

June 2024 - Sept 2024

- Focused on EMG and cognitive eye-gaze analysis to detect driver fatigue and response delay.
- Designed a multimodal fatigue-intervention prototype combining visual HUD, tactile feedback, and voice cues, reducing reaction delay by ≈30% in user testing.
- Addressed the challenge of defining optimal human–machine boundaries during semi-autonomous driving; verified the use of scent-based interventions for fatigue relief.
- Project received Red Dot Design nomination and was featured at Shenzhen InnoX Innovation Forum.
- Strengthened expertise in physiological computing, multimodal HMI design, and cross-disciplinary collaboration between engineers, designers, and psychologists.
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**Spatial Computing for Street Art Preservation**  
Project Lead , Collaboration with University of Melbourne

Chongqing, China  
June 2022 - Now

- Led the design of a spatial-computing platform archiving and authenticating urban graffiti using AR visualization and blockchain attribution.
- Integrated geolocation anchors and digital certificates to ensure long-term stability and authorship verification.
- Highlighted in cross-cultural workshops as a model for cultural computing and socio-technical systems linking digital heritage with sustainable design.
- Conducted in-depth cultural and site analysis, exploring graffiti's impact on urban environments across various global locations, and proposed strategies to harmonize graffiti culture with local community values

## Work Experience

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**Theme Design Team, HUAWEI Co, Ltd.**

Shenzhen, China  
Sep 2022 - Dec 2022

UX Intern

- Conducted extensive user surveys and keyword trend analysis to extract preferences, which directly informed visual style and design choices, enhancing user engagement during the pandemic
- Led the design and launch of two mobile themes and corresponding watch face designs on the Huawei Theme Store, complete with a unified 3D aesthetic, 68 official icons, and 51 third-party icons, culminating in an Appearance Patent and exhibition accolades
- Contributed to lock screen interactions, widget design, and overall theme interaction design, fully participating in user data analysis and design specification development based on official documentation

**Tiktok Effects workshop, ByteDance Ltd.**

Chengdu, China  
Oct 2023 - Dec 2023

Filter Developer

- Designed and launched six filters on TikTok and TikTok Lite, garnering over 1,000 interactions and in excess of 10,000 views, with one filter gaining a feature on TikTok's official homepage
- Conducted an in-depth analysis of special effects trends among TikTok's 500 million daily active users, leading to the development of custom effects across three key categories: beauty transformation, scene atmosphere, and fun AR
- Developed a range of effects including two beauty enhancement filters, one character design filter, one facial morphing filter, and two AR effects — one featuring a cute IP character and another creating an immersive AR scene

## ADDITIONAL INFORMATION

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**Computer Skills**

Matlab, SPSS, Nvivo, Origin, Python

**3D Rendering**

Blender / Cinema 4D / Octane / Keyshot / Mixer

**Creative Coding**

TouchDesigner / Processing / p5.js / max.msp / Unity / Ableton live /

**Smart Hardware Interaction**

Arduino IDE / esp32/ Leapmotion / Kinect / LoT(TinyML)

**UX Design skills**

Adobe Creative Suite / DaVinci Resolve / Figma / Principle / Webflow

**Machine Creativity**

ComfyUI / styleGAN / Stable diffusion/ ML/ LLM Prompt engineering