

YECHEN ZHU

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SUMMARY

Interdisciplinary innovation designer with comprehensive knowledge of technologies and sensory experience: modular products, spatial olfaction computing, wearable technologies, consumer electronics, UX/UI.

EDUCATION

Rhode Island School of Design

June 2024

Master of Industrial Design

RISD Fellowship; RISD Assistantship; 2022, 2023 Fred M. Roddy Scholarship

Certificate in Collegiate Teaching in Art + Design Conferred with Collegiate Teaching Experience

Shanghai University

June 2021

BFA in Digital Media Art

2021 Shanghai City Honor Graduate, 2021 Shanghai Municipal Scholarship

PROFESSIONAL EXPERIENCE

Virginia Aquarium & Marine Science Center

November 2024 - Present

Exhibits Technician; Supervisor: Jennifer A. Wolf

Virginia Beach, VA

- Researched the mechanical structures and electronic components of old exhibits. Update the electronic controllers of interactive exhibits to use Arduino for control.
- Planned, designed, and fabricated a from-scratch exhibit to educate children about the movement and behavior of stingrays.

RISD E-Lab

September 2022 - May 2024

Assistant Manager; Advisor: Soojung Ham

Providence, RI

- Cultivated a diverse, inclusive, and welcoming learning environment and a respectful lab culture for students and faculty.
- Led workshops about coding at the RISD Industrial Department.
- Created clear, accurate, user-friendly technical documentation, signage, and instructions for labs and equipment.

BrainCo, Inc

July 2021 - November 2021

UX Designer; Advisor: Zhaoyi Yang

Hangzhou, China

- Participated in the sleep wearable project. Researched sleep products market, created early-stage sketches and 3D models, and conducted user testing for the comfort of the product around the ear area.
- Collaborated closely with a team of electronic engineers, gaining hands-on experience in the smart product development lifecycle.
- Used WordPress to add content to the website and adjust the uniformity of the image and check the location details of the various modules on the page.

ACADEMIC EXPERIENCE

Printed Modular Biobrick Lamp

September 2023 - May 2024

Sustainability Design Lab, RISD; Advisor: Eduardo Benamor Duarte, Lara Davis, Soojung Ham

Providence, RI

- Designed a modular lamp inspired by clay molecular behavior, manufactured using digital printing technology with raw materials consisting of 50% ceramic waste and 50% porcelain clay, resulting in a 10% reduction in energy consumption. This project was recognized as a RISD finalist in the Terra Carta Design Lab and has been selected for exhibition at the Fifth Avenue Hotel and the New Lab in 2024 Climate Week NYC.

Electronic Self-Rolling Ball

September 2022 - August 2023

RISD Research Assistant; Advisor: Adam Smith

Providence, RI

- Designed a unique spherical structure capable of sustained autonomous rolling. Primarily focused on internal circuitry design of the sphere, utilizing ESP32 in Access Point (AP) mode to enable remote control of servo motor operations via a web interface: forward, backward, and random motion modes.

Inflatable Pajama

MIT Media Lab; Collaborator: Dr. Adam Haar Horowitz

August 2021 - May 2022
Cambridge, MA

- Innovated a cutting-edge inflatable pajama, specifically designed to target pressure points on the legs and arms during REM sleep, offering a unique approach to influencing dream narratives.
- Conducted rigorous material testing, evaluating factors like comfort, elasticity, and durability, leading to the selection of vinyl and TPU-coated nylon as prime candidates.
- Spearheaded the design process, creating intricate patterns for the inflatable structure, ensuring both aesthetic appeal and functional efficacy.

TEACHING EXPERIENCE

Faculty of Record

Rhode Island School of Design

January 2024 - February 2024
Providence, RI

- Conducted a series of lectures and workshops to teach students to design different patterns using TPU, Vinyl, silicone and other materials to make shape-changing objects, as well as programming techniques of Arduino and DIY capacitive sensors.

Teaching Assistant

RISD Professor Soojung Ham's Interactions and Connections for the Human Mind course

Spring 2023, Fall 2023
Providence, RI

- Offered dedicated technical guidance to students outside of regular class hours, focusing on the application of Arduino technology in their projects.

PUBLICATION

1. **Ye Chen Zhu.** Cultivating a Green Interface: Exploring the Potential of Human-Product Interaction Based on Plant Interfaces. (2024) IDSA International Design Conference & Education Symposium
2. **Ye Chen Zhu.** Waste Illuminates Worlds: Printed Modular Lamp Design Based On Brick and Clay Tile. (2024) Masters Theses. 1327. <https://digitalcommons.risd.edu/mastersthesis/1327>.
3. **Ye Chen Zhu.** Divcap: A Smart Nightcap that Promotes Sleep through the Five Senses. 2020 5th International Conference on Automation, Control and Robotics Engineering (CACRE), Dalian, China, 2020, pp. 744-748, doi: 10.1109/CACRE50138.2020.9230016.
4. **Ye Chen Zhu.** (2020, Mar.). Design of olfactory information visualization - Olfactory AR Watch 'oWatch', published in 'Design' Journal (sponsored by China Industrial Design Association)

AWARD

Core77 Design Awards Emerging Technologies Awards 2024
17th Annual International Design Awards (IDA)
12th User Experience Design Award (UXDA)

Student Notable
Silver & Bronze
Bronze

SKILLS

Software	Adobe Creative Suite, Figma, Sketch, Rhino, Keyshot, Arduino, Max/ Msp, Clo3D, p5js
Design	Product Strategy, Rapid Prototyping, Wireframing, Persona, Storyboarding
Fabrication	Laser Cutting, Metal Lathe, Milling Bed, 3D printing, Sewing, Shoemaking, 3-Axis CNC