

Ye Chen Zhu

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SUMMARY

Industrial designer who pairs research-driven inquiry with hands-on fabrication to deliver interactive products and exhibits from concept and form development through embedded electronics and final build. Background spans consumer wearables, sensory interfaces, and museum-scale installations.

EDUCATION

Rhode Island School of Design Jan. 2022 – Jun. 2024
Master of Industrial Design Providence, RI

- RISD Fellowship; RISD Assistantship; Fred M. Roddy Scholarship (2022, 2023)
- Certificate in Collegiate Teaching in Art + Design

Shanghai University Sep. 2017 – Jun. 2021
Bachelor of Fine Arts Shanghai, CN

- Shanghai City Honor Graduate (2021)
- Shanghai Municipal Scholarship (2020)

PROFESSIONAL EXPERIENCE

Virginia Aquarium & Marine Science Center Nov. 2024 – Present
Exhibits Technician II - Interactive Exhibit Design & Fabrication Virginia Beach, VA

- Designed and hand-built an interactive coral spawning exhibit. An Arduino-controlled blower fan releases gametes on cue, which was fabricated from wood and 3D-printed components, delivered concept-to-install.
- Designed and built a tactile stingray-tail mechanism that mechanically reproduces ray fin movement visitors learn locomotion by feel rather than by reading, addressing accessibility for younger and visually-oriented audiences.
- Developed a remote-controlled pan-tilt camera system for live animal observation, interfacing an ESP32 microcontroller with camera hardware over RS-485.
- Retrofitted 3 legacy exhibits with Arduino sensor and controller upgrades, restoring interactive function while preserving each exhibit's original housing, which extended useful life past planned end-of-life dates.
- Translated abstract marine science into tangible, age-appropriate educational kits (e.g., jellyfish lifecycle).

BrainCo Jul. 2021 – Nov. 2021
UX / Industrial Design Intern Hangzhou, CN

- Contributed to an early-stage sleep wearable across the full smart-product cycle: teardown of 5 competing devices, 3+ form sketches, 3 Rhino iterations, and user testing focused on around-ear pressure distribution.
- Collaborated with electronic engineers across the smart-product development lifecycle, gaining first-hand exposure to embedded hardware constraints.
- Maintained product website content and visual consistency in WordPress.

SELECTED PROJECTS

Printed Modular Biobrick Lamp Sep. 2023 – May 2024
RISD Sustainability Design Lab Providence, RI

- Designed a modular lamp inspired by the behavior of clay molecules, manufactured via digital printing with ceramic waste and porcelain clay, resulting in reduced firing energy compared to conventional ceramic processes.
- Selected as RISD finalist in the Terra Carta Design Lab (international sustainability competition launched by HM King Charles III & Sir Jony Ive with the Royal College of Art); exhibited at the Fifth Avenue Hotel and New Lab during Climate Week NYC 2024.

Inflatable Pajama

MIT Media Lab

Aug. 2021 – May 2022

Cambridge, MA

- Designed an inflatable garment that targets pressure points on legs and arms during REM sleep to influence dream content.
- Led material exploration (vinyl vs. TPU-coated nylon) on comfort, elasticity, and durability; designed inflatable patterns balancing aesthetics and functional efficacy.

Electronic Self-Rolling Ball

RISD Research Assistantship

Sep. 2022 – Aug 2023

Providence, RI

- Designed a spherical structure capable of sustained autonomous rolling; built internal circuitry around an ESP32 in AP mode for browser-based remote control of forward, backward, and randomized motion.

Teaching Experience

Faculty of Record

Rhode Island School of Design

Jan. 2024 – Feb. 2024

Providence, RI

- Taught soft-robotics and interaction workshops covering shape-changing structures in TPU, vinyl, and silicone, plus Arduino programming and DIY capacitive sensors.

Teaching Assistant

Interactions and Connections for the Human Mind, RISD

Spring & Fall 2023

Providence, RI

- Provided technical mentorship on Arduino integration in student projects outside class hours.

PUBLICATION

Yechen Zhu. (2025). Cultivating a Green Interface: Exploring the Potential of Human-Product Interaction Based on Plant Interfaces. Proceedings of the Nineteenth ACM Conference on Tangible, Embedded, and Embodied Interaction (TEI 25).

Yechen Zhu. (2020). Divcap: A Smart Nightcap that Promotes Sleep through the Five Senses. IEEE 5th International Conference on Automation, Control and Robotics Engineering (CACRE), Dalian, China.

Yechen Zhu. (2020). Design of Olfactory Information Visualization Olfactory AR Watch oWatch. Design Journal (China Industrial Design Association).

Additional: M.I.D. Thesis - Waste Illuminates Worlds: Printed Modular Lamp Design Based on Brick and Clay Tile (RISD, 2024).

AWARDS

Core77 Design Awards Emerging Technologies, Student Notable

International Design Awards (IDA) Silver & Bronze

User Experience Design Award (UXDA) Bronze

SKILLS

Design Rhino, Keyshot, Sketching, CMF, Adobe Creative Suite, Figma, Sketch, Clo3D

Fabrication 3D Printing, Laser Cutting, CNC Milling, Metal Lathe, Shoemaking, Mold Making

Interactive Arduino, ESP32 (RS-485), Max/MSP, MadMapper, p5.js, TouchDesigner

Process User Research, Persona, Storyboarding, Wireframing, Rapid Prototyping, Product Strategy