Hongyu Yue

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EDUCATION

B.A. in Visual Communication Design **| Tongji University** Sep.2021-Jun.2026

Gap year: worked as an RA under Prof. Teng Han(Sep.2024-Sep.2025)

- Current GPA: 4.82/5.0(93.21%); Major Rank: 1/18
- Core Courses: Design Thinking and Expressions1&2(A), Design Technology1&2&3&4(A), Open-source Hardware and Programming(A), Design Methods(A), Design Internship 1&2&3(A)
- Scholarships: National Scholarship(2023-2024), 1st Class Scholarship(2022-2023), 2nd Class Scholarship(2021-2022)

RESEARCH EXPERIENCE

Human-Computer Interaction Lab, Chinese Academy of Sciences Jul.2024-Sep.2025

Conducted human-computer interaction research on exploring electrotactile stimulation to provide more realistic haptic feedback for VR systems.

- Project1: "*Slip-Grip*"(published at *CHI 2025*, 4th author), electrotactile-based weight perception simulation system
  Conducted literature research and formulated recommendations for algorithm enhancement.
  Assisted in the design of a handheld device, responsible for designing, implementing, and analyzing user tests.
- Project2: "*E-Elasticity*"(submitted to *CHI 2026*, co-first author), electrotactile-based elasticity simulation project
  Developed the core algorithm, built the haptic interface, and VR prototype(Unity/Qualisys).
  Responsible for designing, executing, and analyzing user tests, as well as formulating articles.
- Project3: "*EXILO*"(filed Invention Patent as first inventor), electrotactile glove
  Led the research and development of an electrotactile glove, completed the design of a full-hand flexible circuit board, and implemented the product's engineering.
  Developed a haptic tool integrating high precision, lightweight, low cost, and comfortable wearability.

Center for Digital Innovation, Tongji University Sep.2025-Present

- Conducted research on wearable rehabilitation devices, focusing on fully textile-integrated rehabilitation garments and deep learning models for muscle monitoring.
- Participated in the *Body Motion Monitoring and Compensatory Movement Recognition* project, designed structural solutions that ensured both signal stability and wearability, and drove the implementation of the technical solution through multiple rounds of sampling tests and iterations.

ENTREPRENEURIAL EXPERIENCE

Co-founder&Chief Technology Officer(CTO) **| Frontier** Sep.2025-Present

- Led the mechanical and software design of "*PulseWeave*", a wearable device that combines high-precision motion sensing with electrical stimulation for pain relief, establishing a leading position in the rehabilitation market.
- Developed the roadmap for product manufacturing, supply, and logistics. Led the production, testing, and delivery of the first product batch.
- Received a **2,000,000 CNY** seed investment from Miracle Plus.

PUBLICATION&PATENT

- Hongnan Lin*, **Hongyu Yue***(equally contribute), Fengyu Wang, Dangxiao Wang, Teng Han, and Feng Tian. "E-Elasticity: An Electrotactile Method to Simulate Elasticity." ACM Conference on Human Factors in Computing Systems(CHI'26)(Under Review)
- Hongnan Lin, Lei Gao, Shengsheng Jiang, **Hongyu Yue**, Ziyi Fu, Jinyi Luo, Chengxiao Wu, Teng Han, Feng Tian, Sriram Subramanian. "Slip-Grip: An Electrotactile Method to Simulate Weight." ACM Conference on Human Factors in Computing Systems(CHI'25). https://doi.org/10.1145/3706598.3713361 Apr.2025
- **Hongyu Yue**, Ruiyi Liu, Qi Wang. "A flexible electrotactile device with an adjustable bonding structure and modular electrode array." China Invention Patent Application No. 202511814205.8(Filed)

AWARDS & RECOGNITIONS

Animation & Film

Independent Animation "*Urban Duo*"

- Officially selected at 31 international film festivals, including 12 Oscar-qualifying festivals such as PÖFF Shorts 2025 and Animafest Zagreb 2025(the world's top-tier animation festivals)
- Secured 4 awards, including the Best Animated Film and Best Artistic Award(70,000 CNY)
- Nominated at 4 film festivals, including HOLLYWOOD SHORTSFEST 2025

Product & Industrial Design

Electrotactile Glove "*EXILO*"

- *Gold Award(100,000 CNY)*, Innovation Incubation Category, Design Intelligence Award(2025)
- *Silver Winner*, MUSE Design Awards(2025)
- *Finalist Award*, Better Design Award(2025)
- *Excellence Award*, "Channel Cup" Industrial Design Contest(2025)

Interactive Media & Experience Design

- *First Prize,* Hong Kong Digital Arts Design Competition(2024)
- *First Prize,* Orient Design Award(2024)

SKILLS

- **Language:**

TOEFL iBT: 109(R: 29 L: 29 S: 24 W: 27), Chinese(Native)

- **Content Creation:**

Built an art-focused creator account on rednote, growing it to 46.7K followers

Produced high-impact content, including a post with 175K likes, 25.1K saves, and 1.4K comments

- **HCI Research:**

Study Design, User Interviews, Contextual Inquiry, Journey Mapping, Usability Testing, Finite Element Analysis, Development Using Optical Motion Capture Systems, the Unity Engine, and Basic VR Prototyping

- **Programming:**

Python, C#, Signal Processing, Embedded Systems

- **Mechanical Design & Fabrication:**

3D Printing, Fabric Sewing, Laser Cutting, CNC Machining, Woodworking, PCB design, Basic Prototyping

- **Design Tools:**

Fusion 360, KeyShot, Figma, Adobe Suit

- **Art & Visualization:**

Blender, ZBrush, Substance Painter, DaVinci Resolve