YUTONG SONG

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EDUCATION

Hunan University   Changsha, China

Bachelor of Engineering in Industrial Design   09/2021 – Present

◇ **Overall Score:** 91.69% ; **Major Score:** 90.67%

◇ **GPA:** 3.84/4.0 ; **Ranking:** 1/112

◇ **Core Courses:** Human-Computer Interaction Design; Ergonomics and Design Psychology; Creative Coding and Design; Connectivity Technology and Service Design, etc.

PERSONAL PROJECTS & PORTFOLIO

◇ **I, octopus：**

This project explores human emotional responses and critical decision-making in emergencies through an octopus-inspired brain-machine wearable. By combining EEG signals, bionic tentacle mechanisms, and a magnetic fluid system, it visualizes emotional states with dynamic movement and visual effects. The project reveals the connection between emotions, behavior, and crisis-driven responses by merging biology, art, and technology.

◇ **Greentopia：**

Greentopia is an urban innovation project in New York City, addressing food insecurity for low-income groups and refugees, as well as psychological stress for urban professionals. By utilizing underused rooftops and open spaces, it integrates advanced technologies like machine learning and IoT with community-driven service design to create sustainable urban ecosystems.

◇ **AstraNova AR Helm:**

This project designs an intelligent AR-enabled helmet for future lunar exploration, introducing myoelectric control as a new interaction method. The helmet enhances astronaut efficiency and safety in extreme environments by integrating real-time navigation, environmental monitoring, and task-specific information overlays optimized for microgravity, radiation, and lunar dust conditions.

◇ **Bio-Utility Paradigm:**

This project is set in a future society of extreme egoism, critically examining the instrumentalization of animal evolution driven by human technology under the backdrop of an energy crisis. Using the electric eel as a core case, it simulates its transformation into a "biological battery," uncovering the ethical dilemmas and philosophical conflicts behind human-driven evolution. The project aims to provoke reflection on humanity's role in nature and the profound impact of technology misuse on ecosystems.

ACADEMIC RESEARCH

Impact of VR-based Virtual Naturopathy on Conventional Depression Treatment in Young Chinese Adults

Instructor: AO JIANG | Duration: 2023.3 – 2023.8 | Research Lead

- ✧ Constructed virtual naturopathic scenarios (forest, beach, mountain, lake) using Blender for 3D modeling and Unity for VR development, focusing on the psychological impact of nature-based environments on mental health.
- ✧ Led the recruitment process, conducting interviews and psychological assessments (using QIDS-SR 16 scale) to select participants with mild to moderate depressive symptoms.
- ✧ Utilized SPSS for statistical analysis, performing one-way ANOVA and paired t-tests to assess the impact of VR-based virtual naturopathy on depressive symptoms.
- ✧ Validated that VR-based naturopathy significantly reduced depressive symptoms in young Chinese adults, as evidenced by improvements in HADS and PANAS scores.

The Effects of Aircraft Cockpit Illumination and Color on Passengers' Happiness and Anxiety during Flight

Instructor: HAO TAN | Duration:2023.4 – 2023.6 | Research Lead

- ✧ Conducted participant recruitment, experimental design, and data collection.
- ✧ Managed statistical data analysis using SPSSAU, including two-factor ANOVA and normality testing.
- ✧ Drafted the research report and analyzed implications for the Chinese aviation industry and provided valuable insights into enhancing passengers' flight experiences through optimized cockpit design.
- ✧ Offered suggestions for improving the competitiveness of China's domestically-produced aircraft by incorporating psychological insights into design.

PROFESSIONAL EXPERIENCE

NIHON KOHDEN   06/ 2023 - 08/2023

Intern, Circulator Machine Development Department (R&D Center)

- ✧ Led user research activities, including interviews and focus groups, to identify user needs and pain points related to medical equipment.
- ✧ Analyzed data to create detailed user requirement documents, facilitating effective product design.
- ✧ UI/UX Design and High-Fidelity Prototyping: Utilized Figma to design key interfaces such as the instrument operation interface and data visualization modules.
- ✧ Developed high-fidelity prototypes and iteratively optimized designs based on user feedback to enhance usability in real-world scenarios.
- ✧ Design Review and Improvement: Served as the primary spokesperson for the design team in weekly reviews, leading discussions, incorporating feedback from various departments, and continuously refining design solutions through A/B testing to improve user satisfaction.
- ✧ Cross-Departmental Communication and Project Management: Collaborated closely with R&D directors, development engineers, and marketing teams to ensure smooth project execution.

♦ Regularly updated stakeholders on project progress and authored reports, addressing challenges effectively.

EXTRACURRICULAR ACTIVITIES

Hunan University   07/2022 - 09/2022

Representative

♦ Organized lectures and sharing sessions to help new students acclimate to university life, addressing emotional fluctuations through one-on-one communication and counseling.
♦ Led the design of new student clothing and dormitory door signs, collaborating with university administration and suppliers to align with institutional branding and ensure timely production.
♦ Facilitated a smooth transition for the class of 2022 and 2023, enhancing their sense of belonging and understanding of university resources.
♦ Achieved high recognition for the innovative design of new student materials, particularly clothing, praised for its practicality and style.

PROFESSIONAL SKILLS

♦ UI/UX Design (Figma), prototyping, graphic design (Photoshop, Illustrator)
♦ Interactive media development (P5.js, TouchDesigner)
♦ Hardware programming (Arduino)
♦ 3D modeling and rendering (Rhino, KeyShot)
♦ Video editing skills
♦ User research and analysis, data analysis (SPSS, Excel)
♦ SPSS, EVIEWS, regression analysis, statistics software
♦ Front-end development (HTML, CSS, JavaScript)

OTHER INFORMATION

♦ **Honors and Awards:**

- 2024-12/2023-12/2022-12: National Scholarship for the Academic Year - Ministry of Education of the People's Republic of China*3
- 2023-11: "Outstanding Student Model" for the 2022-2023 Academic Year - Hunan University
- 2022-11/2023-11/2024-11: "Outstanding Student " for the Academic Year - Hunan University*3
- 2024-05: First Prize in the Hunan Division of the Milan Design Week China College Design Exhibition - Organizing Committee of the Milan Design Week China College Design Exhibition
- 2024-06: Second Prize in the National Finals of the Milan Design Week China College Design Exhibition - Organizing Committee of the Milan Design Week China College Design Exhibition
- 2023-05/2024-05: First Place in 50m Breaststroke & Backstroke at Hunan University Swimming Competition - Sports Committee of Hunan University*2
- 2024-04: "Best Film Award" in the Environmental Protection Creative Short Video Competition - Organizing Committee of the Environmental Protection Creative Short Video Competition

- 2023-10: First Prize in the Student Industrial Design Competition - Organizing Committee of the Hunan Province University Student Industrial Design Competition
- 2023-10/2024-10: Second Place in Women's 100m at the 24th Sports and Culture Festival of Hunan University - Sports Committee of Hunan University*2
- 2023-08: First Prize in the 11th Future Designer National College Digital Art Design Competition - Organizing Committee of the Future Designer National College Digital Art Design Competition (NCDA)
- 2023-06: Silver Award in the 2023 FA International Frontier Innovative Art Design Competition - French Design Industry Federation & FA International Frontier Innovative Art Design Competition Organizing Committee
- 2023-05: Two Bronze Awards in the 5th Hong Kong University Student Contemporary Design Awards - Organizing Committee of the Hong Kong University Student Contemporary Design Awards

◇ **Hobbies:**

- Sprinting: Participated in many games, achieving 1st and 2nd place in 100m and 200m events, and 1st place in 4x100m relays. Cultivates concentration and toughness.
- Diving: Holds PADI Open Water Diver Scuba Diving Certification. Enhances connection with nature and fosters exploration.
- Taekwondo: 2nd Dan Black Belt in Taekwondo, began training at age 5. Won consecutive Shanghai Taekwondo Invitational Championships. Teaches self-discipline and focus.
- Other Sports: Skiing & Skateboarding
- Chinese Painting: Started learning at age 4. Achieved Level 9 Certification from the China Academy of Art and Level 10 Certification from the China Institute of Art and Technology, both the highest levels in their respective systems. Expresses inner feelings and balances nature and art.
- Calligraphy: Level 6 Certificate from the Fine Arts Examination Center of the China Institute of Art Science and Technology. Cultivates concentration and enhances artistic expression.
- Nature: Designed and built a "villa" for turtles, fish, and plants, applying design thinking to real-world problem-solving.
- Tropical Plants: Created a multifunctional vertical plant shelf with a smart lighting system for optimal growth conditions.