

Bob Tianqi Wei

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Multidisciplinary designer and creative technologist with a background in interaction design, industrial design, and HCI research. Skilled in turning complex ideas into human-centered systems through prototyping, user research, and cross-disciplinary collaboration. Passionate about building thoughtful tools that bridge design, technology, and education.

Education

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| University of California at Berkeley, College of Engineering, CA, USA | Aug 2023 – Dec 2024 |
| Master of Design in Human-Computer Interaction | Distinguished Scholar, 3.66/4 |
| Tsinghua University, Academy of Arts and Design, Beijing, China | Aug 2019 – Jun 2023 |
| B.A. in Industrial and Product Design | 3.71/4 |

Selected Projects

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| Ekphrasis – AI Feedback Tool for Graphic Design Education, BiD Lab UX Researcher & Developer | 2024 |
| <ul style="list-style-type: none">Designed an AI-powered interactive tool offering visual feedback to help students understand abstract design concepts.Conducted user research and thematic analysis with 11 educators to identify language barriers in design critique.Developed an Interface and a machine learning model to generate contextualized visual examples based on students' work, enhancing design comprehension and vocabulary acquisition.Improved learning outcomes for novice designers through real-time, visual, and context-aware design aids. | |
| Sympathetic Orchestra – Interactive System for Conducting Practice, Interaction Designer & Developer | 2022-2024 |
| <ul style="list-style-type: none">Developed a real-time hand-tracking conducting interface that mirrors live orchestra responsiveness.Led qualitative user study showing improved phrasing and expression through dynamic audio feedback.Applied HCI and embodied learning frameworks to support tacit musical skill development. | |
| MorphingSkin – Fluidic Multimodal Interface, Morphing Matter Lab Product & Mechanical Designer | 2024-2025 |
| <ul style="list-style-type: none">Designed a stretchable surface integrating electroosmotic pumps for shape, light, and force feedback.Built soft robotic prototypes for wearables and tangible interfaces with multimodal actuation.Enabled programmable morphing through custom fabrication and system design. | |
| Illuminatio – Adaptive Smart Lighting with Biocentric AI, Industrial Designer & Developer | 2023 |
| <ul style="list-style-type: none">Created a biologically-informed smart lamp that adjusts light based on user rhythm and behavior.Prototyped with Raspberry Pi, camera sensing, and servo-controlled light modulation. Created Rhino and AutoCAD schematics, fabricated custom aluminum mounts, and implemented dynamic scene transitions.Explored user-in-the-loop adaptive systems for well-being and smart environments. | |

Teaching

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| UC Berkeley, INFO 213: Introduction to User Experience Design, Reader | Aug 2024 - Dec 2024 |
| UC Berkeley, DESINV 22: Prototyping and Fabrication, Lead TA | Jun 2024 - Aug 2024 |
| UC Berkeley, INFO C262: Theory and Practice of Tangible User Interfaces, Lead TA | Aug 2023 - Dec 2023 |

Key Publications

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| Generating Visual Aids to Help Students Understand Graphic Design with EKPHRASIS | Apr 2025 |
| Bob Tianqi Wei, Shayne Shen, Shm Almeda, Bjoern Hartmann. ACM Conference on Human Factors in Computing Systems (CHI) 2025, doi.org/10.1145/3706599.3719807 | |
| Demonstration of Sympathetic Orchestra: An Interactive Conducting Education System for Responsive, Tacit Skill Development | Oct 2024 |
| Bob Tianqi Wei, Shm Almeda, Ethan Tam, and Dor Abrahamson. ACM Symposium on User Interface Software and Technology (UIST) 2024, doi/10.1145/3672539.3686783 | |

Skills

Design & Research: User Research, Design Thinking, Wireframing, Storyboarding, Journey Mapping, Design for Manufacturing
Tools: Figma, Rhino, Grasshopper, SolidWorks, AutoCAD, Keyshot, Adobe CC, Unity, Arduino, Processing, Raspberry Pi
Prototyping & Fabrication: 3D Printing, Laser Cutting, Silicone Casting, Physical Computing, Sensor Integration
Programming: C++, Java, Python, MATLAB, Processing, JavaScript, HTML/CSS, Max MSP
Languages: English (TOEFL 110), Mandarin Chinese (Native), Japanese (Fluent)
Hobbies: Photography, Musical, Watercolor, Badminton, Cooking, Palmistry, FengShui