

Bob Tianqi Wei

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Education

University of California at Berkeley, College of Engineering

Master of Design, Human-Computer Interaction

Tsinghua University, Academy of Arts and Design

B.A. in Industrial and Product Design

Aug 2023 – Dec 2024

Distinguished Scholar, 3.66/4

Aug 2019 – Jun 2023

3.71/4

Skills

Programming: Python, TypeScript/JavaScript, C++ , Java, HTML/CSS, MATLAB, Processing, Max/MSP

ML & Vision: PyTorch, scikit-learn, CLIP, SentenceTransformers, ResNet50, OpenCV, UMAP, LLM APIs, prompt design

Data & Systems: Vector search, Flask, Express, Node.js, React 18, Docker, Git

HCI Research: study design, IRB/ethics, interviews, thematic analysis, usability testing, accessibility

Tangible Interfaces: embedded systems, sensors & actuators, soft robotics

Fabrication: mechanical design, CAD: Rhino, SolidWorks, Fusion 360, digital fabrication, flow/pressure & tensile testing

Design: interaction design, rapid prototyping, Figma, Adobe CC

Publications

MorphingSkin: A Skin-like Platform that Integrates Multimodal Hydraulic Actuators Bbased on Flexible Electroosmotic Pumps. Tianyu Yu, Peisheng He, **Bob Tianqi Wei**, Chenyuheng Wang, Xueqing Li, Xuezhu Wang, Yao Lu, Wei Yue, Megan Teng, Zihan Wang, Liwei Lin, Haipeng Mi, Qi Lu, Lining Yao.

ACM Symposium on User Interface Software and Technology (UIST) 2025 , 🏆 BEST PAPER AWARD. 10.1145/3746059.3747685

Generating Visual Aids to Help Students Understand Graphic Design with EKPHRASIS. **Bob Tianqi Wei**, Shayne Shen, Shm Almeda, Bjoern Hartmann.

ACM Conference on Human Factors in Computing Systems (CHI) 2025. 10.1145/3706599.3719807

Labor, Power, and Belonging: The Work of Voice in the Age of AI Reproduction. Shm Almeda, Robin Netzorg, Isabel Li, Ethan Tam, Skyla Ma, **Bob Tianqi Wei**.

ACM Conference on Fairness, Accountability, and Transparency (FAccT) 2025. 10.1145/3715275.3732082

Demonstration of Sympathetic Orchestra: An Interactive Conducting Education System for Responsive, Tacit Skill Development. **Bob Tianqi Wei**, Shm Almeda, Ethan Tam, Dor Abrahamson.

ACM Symposium on User Interface Software and Technology (UIST) 2024. 10.1145/3672539.3686783

Material-Driven Design and Fabrication of Devices for Direct Ecological Interventions: Practices, Challenges, and Opportunities. Yaning Li, Ziqian Yu, Chengjun Li, Yuexi Chen, Yue Yang, Tingyu Cheng, Ziyao He, **Bob Tianqi Wei**, Eldy S. Lazaro Vasquez, Zeyu Yan, Di Wu, Tianyu Yu, Yuecheng Peng, Dinesh K. Patel, Huaishu Peng, Nivedita Arora, Aditi Maheshwari, Guanyun Wang, Teng Han, Josiah Hester, Jean-Baptiste Labrune, Andreea Danielelescu, Pedro Lopes, Vikram Iyer, Hiroshi Ishii, Lining Yao, Qiuyu Lu, Meng Li.

ACM Conference on Human Factors in Computing Systems (CHI) 2026, Paper Under Review

Experience

UC Berkeley EECS - Berkeley Institute of Design Lab. Prof. Bjoern Hartmann, Researcher

Nov 2023 – Present

- HCI research at the intersection of generative AI and creative work; mixed-methods integrated with system building
- Developed [ArtiFactor](#), a multi-agent creative platform with LLMs and multimodal ML; full-stack orchestration (React/Node/Flask, Dockerized ML)
- Co-authored *EKPHRASIS* (CHI '25) and *Labor, Power, and Belonging* (FAccT '25)

Anything (Create, Inc.), Software Engineer - Frontend (Contract), San Francisco, CA

Jul 2025 – Sep 2025

- Shipped high-fidelity marketing sites for the [Anything](#) AI app builder; collaborated with design and founding team
- Converted Figma specs into pixel-accurate, responsive React UI; established reusable components and design tokens
- Contributed to internal AI-agent workflows and QA; improved UI quality and handoff with engineering

UC Berkeley ME - Morphing Matter Lab. Prof. Lining Yao, Researcher

Feb 2025 – May 2025

- Co-designed a portable driver; contributed to schematic and PCB layout, isolation design, connector interfaces, and board bring-up for multimodal hydraulic actuation
- Led structural stack-up and enclosure design; established repeatable fabrication workflows and assembly fixtures
- Authored the *Design Space* and *Applications* sections; proposed and prototyped multiple application scenarios
- Produced demo assets—storyboarded, filmed, and edited videos; prepared figures and documentation
- Co-authored *MorphingSkin* (UIST '25 Best Paper)

UC Berkeley School of Education. Prof. Dor Abrahamson , Graduate Student Researcher	Aug 2023 – Dec 2023
<ul style="list-style-type: none"> Investigated embodied learning and tacit skill acquisition in interactive educational environments Developed <i>Sympathetic Orchestra</i> (UIST '24), a webcam-gesture + Web Audio system for responsive virtual-orchestra practice 	
Tsinghua University, Dept. of Industrial Design. Prof. Lintao Tang , Student Researcher	Nov 2022 – Jul 2023
<ul style="list-style-type: none"> Built an adaptive, AI-driven ambient lighting system responsive to user behavior (Raspberry Pi, Python/C++) Synthesized illumination design principles from 18 technical publications to guide control parameters and evaluation 	
Association for Computing Machinery (ACM) , Reviewer	Sep 2024 – Present
<ul style="list-style-type: none"> Reviewed submissions for the ACM CHI, focusing on CSTs and education. 	

Teaching Experience

UC Berkeley, INFO 213: Introduction to User Experience Design , TA	Fall 2024
<ul style="list-style-type: none"> Grades and provides feedback on assignments and coaches students practice in-depth interviews and UX research. 	
UC Berkeley, DESINV 22: Prototyping and Fabrication , Lead TA	Summer 2024
<ul style="list-style-type: none"> Teaches manufacturing techniques and basic electronics to help students build a Bluetooth-controlled vehicle. 	
UC Berkeley, INFO C262: Theory and Practice of Tangible User Interfaces , Lead TA	Fall 2023
<ul style="list-style-type: none"> Delivered introductory courses on open-source hardware development and programming. Developed a course website enabling students to submit assignments, access course materials, schedule office hours. 	
Tsinghua University, Romantic and 20th Century Piano Pieces Performance , Lead TA	Fall 2021, Spring 2022
Xiaozhe Art Studio and Wufang Design Studio, Graphic Design Courses , Instructor (Part Time)	Aug 2019 - Feb 2021

Presentations and Speeches

ACM Symposium on User Interface Software and Technology (UIST) 2025, Busan	Oct 2025
MorphingSkin: A Skin-like Platform that Integrates Multimodal Hydraulic Actuators Based on Flexible Electroosmotic Pumps, Demo and Paper (Best Paper Award)	
ACM Conference on Fairness, Accountability, and Transparency (FAccT) 2025, Athens	Jun 2025
Labor, Power, and Belonging: The Work of Voice in the Age of AI Reproduction, Paper	
ACM Conference on Human Factors in Computing Systems (CHI) 2025, Yokohama	Apr 2025
Generating Visual Aids to Help Students Understand Graphic Design with EKPHRASIS, Poster and Paper	
UC Berkeley Fall 2024 Master of Design Graduation Ceremony	Dec 2024
The Transformative Power of Interdisciplinary Design, Speech	
UC Berkeley MDes Graduate Exhibition “VEINS OF THE COSMOS”	Dec 2024
EKPHRASIS: Learning Tacit Knowledge in Foundational Visual Design Through Human-AI Co-Practice, Demo and Paper	
Jacobs Winter Design Showcase: HCI Research, UC Berkeley	Dec 2024
Romantic Breakups as a Lens for Industrial Cybersecurity: Cross-Domain Insights for Access Control, Poster	
ACM Symposium on User Interface Software and Technology (UIST) 2024, Pittsburgh	Oct 2024
Demonstration of Sympathetic Orchestra: An Interactive Conducting Education System for Responsive, Tacit Skill Development	
UC Berkeley Education Research Day Conference	Apr 2024
Building Professional Hearing: Research on New Tools and Educational Methods for Enhancing the Understanding and Processing of Polyphonic Music, Paper	
Jacobs Institute of Design Innovation Showcase, UC Berkeley	Dec 2023
Poetry in Motion, Installation; Plano, Installation	
International Symposium on Academic Makerspaces 2023, Carnegie Mellon University	Oct 2023
Intelligent Illuminating Product Design Based on Machine Learning, Poster	
2023 Undergraduate Exhibition of Academy of Arts and Design, Tsinghua University	Jun 2023
Intelligent Illuminating Product Design Based on Machine Learning, Demonstration and Paper	
The 41st Student Extra-curricular Academic and Scientific Works Exhibition, Tsinghua University	Apr 2023
Sympathetic Orchestra, Demonstration and Poster	

Awards

Best Paper Award , ACM Symposium on User Interface Software and Technology (UIST) 2025	Oct 2025
MDes Distinguished Scholar Award , University of California, Berkeley	Mar 2023
Social Work Excellence Scholarship , Tsinghua University	2020, 2023
Scholarship for Excellence in Literature and Art , Tsinghua University	2020, 2021, 2022
Honorable Mention , 3rd China College Student Power Battery Innovation Competition	Nov 2021
First Prize of Youth Group , The 7th Macau-Asia Pacific Youth Piano Competition	Jul 2021
Second Prize of Tsinghua University , Beijing College Students Engineering Ability Competition	Dec 2019

Music Performance

Bob Tianqi Wei: Stringed Harmony, Live at CNMAT, UC Berkeley	May 2024
Tianqi Wei & Friends' Graduation Concert, Live at Tsinghua University Music Library	May 2023
Rachmaninoff: Piano Concerto No.2, Conductor, Live at New Tsinghua School Concert Hall	May 2022
Elisabeth (musical, Japanese), Rudolf, Live at Meng Minwei Hall, Tsinghua University	Oct 2021
J.S.Bach: Concerto in D Minor BWV 974, Piano Solo, Live at Steinway Hall Beijing	Jul 2021
J.S.Bach: Goldberg Variations BWV 988, Piano Solo, Live at Meng Minwei Concert Hall	Dec 2020

Leadership

Tsinghua University Student Art Troupe Clavier Team, President	Aug 2021 - Aug 2022
<ul style="list-style-type: none">Organized and held large-scale concert activities and art popularization lectures.Empowered the team to participate in international professional competitions.	
Tsinghua University iOS Club, Leader of Publicity Group and Member of Product Manager Team	Aug 2021 - Aug 2022
<ul style="list-style-type: none">Represented the club to Apple headquarters for an interaction and hardware theme exchange, allowing the club to receive support for development equipment, funding, and internship resources.Led team developed a cognitive training app for the elderly to help them practice mental exercises to prevent dementia.	
Tsinghua University Student Union, Member of Sport and Recreation Department	Aug 2019 - Aug 2020
<ul style="list-style-type: none">Organized basketball games and planned a promotional campaign for graduation music festivals.	