

Bob Tianqi Wei

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Education

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

Skills

Programming Languages: Python, JavaScript (TypeScript), C++ , HTML, CSS
Frameworks & Libraries: React 18, Node.js, Flask, Express, RESTful APIs, ReactFlow
AIML: LLM APIs, Prompt Engineering, CLIP, SentenceTransformers, ResNet50, UMAP
Databases & Infrastructure: Pinecone, SQLite (with vector extensions), Docker, Git
Design & Prototyping: Figma, Adobe Creative Suite, User Research, Interaction Design, Raspberry Pi, Rhino, AutoCAD

Projects

PartSelect Chat Agent - AI Agent for E-Commerce Customer Support (React, Node.js, Pinecone)	Jun 2024
<ul style="list-style-type: none">Engineered a production-ready e-commerce AI agent using DeepSeek, React, and Node.js to support customer serviceIntegrated Pinecone vector DB (1536-dim embeddings) enabling sub-500ms semantic search and compatibility checksBuilt intelligent query preprocessing and multi-modal response generation, handling part/model number recognition, troubleshooting, and step-by-step installation guidanceDelivered a fully functional prototype with <3s response latency, <1% error rate, and full mobile optimization within 48 hrs	
GAF Sales Intelligence Platform - AI Agent for B2B Sales Insights (Python, FastAPI, Streamlit)	Jul 2024
<ul style="list-style-type: none">Designed and implemented a modular data pipeline to scrape, process, and enrich public contractor dataBuilt a role-based web dashboard with interactive map visualizations and CSV export, enabling sales teams to prioritize leads and tailor outreach strategiesDeveloped robust backend APIs and database models, ensuring scalable integration, efficient data retrieval	
Ekphrasis – AI Feedback Tool for Graphic Design Education (Jupyter Notebook, HTML, Python)	Aug 2024 - Jan 2025
<ul style="list-style-type: none">Designed an AI-powered interactive tool offering visual feedback to help students understand abstract design conceptsConducted user research and thematic analysis with 11 educators to identify language barriers in design critiqueDeveloped an Interface and a machine learning model to generate contextualized visual examples based on students' workImproved learning outcomes for novice designers through real-time, visual, and context-aware design aids	
Illuminatio – Adaptive Smart Lighting with Biocentric AI (C++ , Python, Raspberry Pi)	Jan 2023 - May 2023
<ul style="list-style-type: none">Created a biologically-informed smart lamp that adjusts light based on user rhythm and behaviorPrototyped with Raspberry Pi, camera sensing, and servo-controlled light modulation. Created Rhino and AutoCAD schematics, fabricated custom aluminum mounts, and implemented dynamic scene transitionsExplored user-in-the-loop adaptive systems for well-being and smart environments	

Technical Experiences

Research Engineer, Berkeley Institute of Design Lab, UC Berkeley EECS, Part-Time	Nov 2023 - Present
<ul style="list-style-type: none">Developed ArtiFactor, an AI-powered creative workflow platform integrating multi-agent orchestration, LLMs, and multimodal ML models (CLIP, ResNet50, MiniLM) to support intelligent content generation and analysisDesigned a semantic knowledge base system with vector embeddings. Architected full-stack systems using React, Node.js, and Python Flask microservices, with real-time agent triggering, workflow automation, and Dockerized ML backendsCollaborated with designers, engineers and researchers to bridge AI/ML capabilities with intuitive UX	
Research Engineer, Morphing Matter Lab, UC Berkeley Mechanical Engineering, Contract	Feb - May 2025
Product and Service Designer, Industrial and Commercial Bank of China, Internship	May - Aug 2022
Industrial Product Designer, ANTA Sports, Internship	Aug - Dec 2021
Visual and Product Designer, Nail & Hammer Creative (Guangzhou), Internship	May - Aug 2021

Teaching

UC Berkeley, INFO 213: Introduction to User Experience Design, TA	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