

# Irene Zhao

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Design Engineering student at Imperial College London with experience in digital product design, interactive systems, and human-centred technology. Skilled in UX prototyping, systems thinking, and computational design, with interests in AI-enabled products, healthcare technology, and multisensory user experiences.

## EDUCATION

### Imperial College London

London, UK

MEng Design Engineering

Sep. 2024 - Jun. 2028

- Cumulative GPA: first class (Dean's List in First Year, Academic representative of department)
- Coursework: Finite Element Analysis, Computational Modelling (MATLAB), Programming for Engineering (Python/MicroPython), Systems Design & Engineering, Data Analysis & Visualisation, Human-Centred Design & UX

## PROFESSIONAL EXPERIENCE

### Arcus Dental

London, UK

UI&UX Design Intern

Jul. 2025 - Sep. 2025

- Led the end-to-end design of a companion mobile application for an intraoral scanning device, defining user flows from device pairing to clinical consultation
- Built interactive Figma prototypes to improve usability and communicate diagnostic data more clearly between patients and clinicians
- Conducted user research and usability testing, translating insights into iterative design improvements adopted in later development phases
- Collaborated with cross-functional teams to align user needs, product functionality, and technical constraints within a healthcare context

### CIMC Group

Shanghai, China

Industrial Design Intern

Sep. 2025 - Oct. 2025

- Supported the industrial design team in the modelling and development of logistics container products within large-scale transportation systems
- Produced and refined 3D design models for container structures and component concepts as part of the product development workflow
- Collaborated with designers and engineers to balance functional requirements, manufacturability, and visual design considerations
- Contributed to design discussions around structural layout, usability, and industrial application contexts within the logistics sector

## KEY PROJECT

### Bloom - Interactive Wellness Product System

Team Leader

May. 2026 - Jul. 2026

- Designed an interactive wellness product ecosystem combining a wearable device and responsive desktop product to support stress awareness and emotional wellbeing
- Developed sensor-based interaction workflows using heart-rate monitoring, breathing guidance, lighting feedback, vibration motors, and tactile interaction mechanisms
- Applied human-centred design methods including user scenario mapping, iterative prototyping, and experience testing to refine interaction behaviour and user experience
- Produced physical prototypes, interaction flows, and system concepts exploring the relationship between multisensory feedback, emotion, and calm technology principles

### Space Maze Chase - Interactive Web Game Project

Personal Project

May. 2026 - Jun. 2026

- Designed and developed an interactive browser-based game using JavaScript, HTML5 Canvas, and modular game mechanics
- Implemented gameplay systems including AI pursuit logic, collision detection, state management, and turn-based interaction mechanics
- Created responsive visual interfaces and integrated audio feedback to enhance player experience and usability
- Applied functional programming principles, debugging workflows, and iterative testing to refine gameplay interaction and system behaviour

## Circular Economy Aircraft Seating System - Sustainable Systems Design Project

*Personal Project*

Oct. 2025 - Jan. 2026

- Designed a modular aircraft seating system aimed at improving circularity, maintenance efficiency, and material recovery within short-haul aviation environments
- Used Flowmapper and stakeholder system analysis to map material flows, maintenance processes, and reverse logistics across the aircraft seating lifecycle
- Developed interchangeable soft-layer and structural components to support rapid repair, replacement, disassembly, and recycling workflows
- Applied circular economy principles through mono-material strategies, lifecycle analysis, benchmarking, and Material Circularity Indicator (MCI) evaluation

## SKILLS AND INTERESTS

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- **Programming & Technical:** Python (basic), MATLAB, JavaScript, HTML/CSS, Data Analysis
- **Design & Prototyping:** Figma, Fusion 360, Rhino, Physical Prototyping, Iterative Testing
- **Engineering & Simulation:** ANSYS, CFD Analysis, Experimental Validation
- **Research & Systems Thinking:** User Research, Interaction Design, Stakeholder Mapping, Circular Design Strategies
- **Interests:** Fitness, Skating, travelling