

PENG CHENG

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Education

- Cornell University**
Master of Science in Design Technology
Aug 2024 – May 2026
- University of Manchester**
Bachelor of Arts (Hons) in Architecture, RIBA Part I
Sep 2020 – Jun 2024

Professional Experience

- Medical Architecture Design and Research First Institute**
Assistant Architect, China IPPR International Engineering Co., Ltd.
2021 – 2022
- Prepared bidding packages with technical specs, concept proposals, and cost estimates for 7 healthcare projects in China.
 - Conducted comprehensive site evaluations and regulatory code analysis across 5+ provinces, informing early-stage planning, zoning compliance, and design strategies for scalable healthcare facilities ranging from 5,000 to 50,000 sqm.
 - Created architectural visualizations and drawings using Rhino, AutoCAD, and V-ray for client presentations.
 - Coordinated with interdisciplinary teams to integrate equipment needs, circulation, and safety protocols.
- Beijing Transarchi Technology Co., Ltd.**
Creative Technologist
July 2025 - Now
- Developed embedded GUI with SquareLine for hotel IoT, delivering 5 modules and boosting user efficiency by 40%.
 - Led HMI and hardware optimization for climbing gym IoT safety system; deployed and calibrated 20+ on-site devices.
 - Built ESP32-based modules and integrated Arduino + Node-RED for real-time monitoring and analytics.
- The XR Collaboratory at Cornell Tech**
Research Assistant
Sep 2025 - Now
- Designed and fabricated 3D-printed parts for structural and functional prototyping.
 - Developed 1:1 AR/VR prototype in XR Collaboratory for immersive interaction and Maker Lab spatial applications.
- ## Design Projects
- AI-Enhanced Educational Toy Development**
Team Lead, Product Designer
Feb 2025

- Chosen as one of 22 teams for Cornell's AI Hackathon, building AI-driven tools for education.
 - Led the concept development, design strategy, 3D modeling, and visualization based on the "Pass It" toy concept.
 - Co-designed an AI-driven educational toy that uses text analysis to convert classroom content into 10+ interactive modules, helping K-12 teachers create collaborative activities through audio and motion.

Cornell Milstein Art + Tech Exhibition Winner
First Prize (the Art + Tech Jury Prize), Graduate Category
Aug 2024

- Led system design and rapid prototyping using Arduino, sensor modules, and 3D-printed physical components.
 - Programmed real-time logic to sync device responses with browser-based gameplay.

Cornell Design Tech Open Studio Featured Project
Interdisciplinary Design & Technology Project
Apr 2025

- Led wearable device concept design, creating an "Echo Model" with speech input, pitch modulation, and tactile feedback.
 - Built wearable prototype with microphone arrays and audio system, achieving 95% accuracy and 300 ms latency.

Technical Skills

- 3D Modeling & Digital Fabrication: Rhino, Grasshopper, Rendering, Digital Fabrication
 - AI & Interaction: AI-driven Design, Prototyping, Interaction Concepts
 - Software Tools: Adobe Creative Suite, Illustration, Figma, HTML/CSS