Yizhuo(Ethan) DI

+1 412 996 1050

yizhuod@andrew.cmu.edu

EDUCATION

Master of Science   August 2024 - June 2026 (expected)

Master of Science in Computational Design

Carnegie Mellon Unversity

Bachelor of Architecture   September 2019 - June 2024

College of Architecture & Urban Planning

Tongji University, GPA:89.9/100.0

SKILLS AND INTERESTS

Interests	HRI, Robotics, Computational Design, Digital Fabrication; Football, Tennis
Skills	Python, C++, C#, Arduino, ROS; Rhino & GH, AutoCAD; Photoshop, Illustrator, InDesign

RESEARCH EXPERIENCE

Creating with AI and Robots   December 2023 - May 2024

Research Project at CAUP, Tongji University

· Developed a creative platform with AI and robotics for artistic self-deconstruction and expression, based on Grasshopper and Stable Diffusion
· Used robotic arm to help painting for people without artistic skills

Non-Planar Sliced Robotic 3D Printing   July 2023 - December 2023

Research Project at CAUP, Tongji University

· Developed a non-planar robotic 3D printing method which helps to break through the inherent limitations of planar 3D printing, reduce support and release new design potential
· Tested the method with ceramic and PETG to verify its performance
· Developed a plug-in based on Grasshopper for designers, researchers and educators, mainly with C#

Crafting Material Irregularity   June 2023 - July 2023

DigitalFutures Workshop 2024

· Computational design for irregular materials based on 3D graphic statics
· Used computer vision to position irregular components
· Sustainable and low-carbon technologies for timber construction

Programmable Curvature Design Based on Zip-Bending Strucutre   May 2023 - June 2023

Research Project at CAUP, Tongji University

· Computational design and robotic fabrication for programmable curvature wood structure based on Grasshopper
· Laser scanning and error analysis

WORK EXPERIENCE

Research and Development Intern   July 2023 - October 2023

ROBOTICPLUS.AI, Shanghai

· Participated in the development of 3d printing, grinding and milling, using Grasshopper, C# and C++
· Participated in the development of robotic arm simulation platform, using C++

AI-Driven Robotic Art Course Teaching Assistant   February 2024 - June 2024

Xiangshan High School, Shanghai

· Introduction to human-AI collaborative art creation

- Taught high school students about parametric design tools such as Rhino & Grasshopper, AI tools and programming tools to aid in art creation
- Taught high school students to program a robotic arm and use it to draw pictures

POSITION OF RESPONSIBILITY

Head of Design Department, TJUlives Startup Team   August 2021 - August 2023
- Led the team to design TJUlives UI and campus cultural creative products
- Received investment from Tongji University Venture Valley

Vice Chairman, FutureArchitecture Club   September 2020 - September 2021
- Led the team to hold lectures, exhibitions and other academic activities

ACHIEVEMENTS

The 9th Cross-Strait Youth Maker Competition, The Industry-Application Prize (Teamwork)	*July 2024*
Graduation Design Permanently Collected by Jianxi Town, Fujian Province (Teamwork)	*July 2024*
Carnegie Mellon Unversity Architecture Merit Scholarship	*March 2024*
Tongji University Outstanding Undergraduate Scholarship	*November 2023*
Mathematical Modeling Competition of Tongji University, Third prize (Teamwork)	*May 2021*
National Olympiad in Informatics in Provinces, First Prize	*Fall 2018*