

Tianle Chen

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EDUCATION	2024 Aug- 2026 May	Carnegie Mellon University, <i>Master of Science in Computational Design (MSCD)</i> Pittsburgh,PA <ul style="list-style-type: none">2024 Fall, GPA: 3.97Architecture Merit Scholarship
	2018 Aug- 2024 May	Rice University, <i>Bachelor's Degree in Architecture (BArch)</i> Houston,TX <ul style="list-style-type: none">2018 Fall- 2024 Fall, GPA: 4.0President Honor Roll (4 semesters); Institutional Honor Cum Laude; Margaret Everson-Fossi Traveling Fellowship, STOA International Architects Inc. Award

WORK EXPERIENCE	2025 May- 2025 Dec	Machine Learning Graduate Fellow, <i>HILOS Inc</i> Portland,OR <ul style="list-style-type: none">Trained custom vision-based models from scratch on proprietary 2D/3D footwear datasets, performing hyperparameter tuning and optimization.Built automated synthetic dataset pipelines with Grasshopper and Python, enabling scalable headless generation and processing.Developed parametric design-to-model workflows, integrating structured design data into ML pipelines.Deployed and integrated models into cloud-based workflows, collaborating with designers and engineers to align outputs with creative and production needs. Pittsburgh,PA
	2024 Aug- 2025 May	Immersive Technologies in Digital Fabrication, <i>CMU CodeLab Mixed Reality Researcher</i> <ul style="list-style-type: none">Engineered a real-time parametric design pipeline in Fologram with Grasshopper and Python, boosting workflow efficiency by automating updates during design processes.Synchronized robotic arms with Microsoft HoloLens for precise wire-bending, merging digital and physical environments to optimize complex-shape fabrication.
	2021 May- 2024 May	CNT Fiber-based Experimental Models in Architecture, <i>Computational Research Assistant</i> Houston,TX <ul style="list-style-type: none">Co-authored and published results in <i>Segmental Ceramic Hollow Structures: Prefabricated Post-tensioned Columns for Ecological Urban Infrastructures</i> (IASS 2024 Symposium)Led a research team of 4 on designing and simulating kinematic folding canopy systems using Kangaroo Physics, incorporating an advanced origami folding script to model dynamic movements, enabling rapid prototyping and enhanced structural adaptability.Optimized fiber-reinforced ceramic column designs using stereotomic techniques and collaborated with Cumella to simulate robotic arm cutting, improving communication and precision in fabrication with engineering team in Barcelona.
	2022 July- 2023 May	NBBJ Architect, <i>Junior Designer</i> Los Angeles,CA <ul style="list-style-type: none">Spearheaded the design of three advanced facade systems for a convention center, utilizing custom Grasshopper scripts to automate geometries and maximize performance.Directed a laboratory design study in Oxford at the DD phase, ensuring technical precision through seamless cross-team collaboration.

RELEVANT PROJECTS	2024 Aug- 2024 Nov	Real-Time Computing as Generative Environments: Digital Behaviors in Responsive Spaces Pittsburgh,PA <ul style="list-style-type: none">Engineered an environmental computing pipeline integrating StreamDiffusion and TouchDesigner, translating user behaviors into real-time generative projections that transformed workspaces into interactive environments.
	2024 Aug- 2024 Dec	Skill-Bridge Complex Data Visualization Interface: Cross-Field Job Market Insights Pittsburgh,PA <ul style="list-style-type: none">Developed an interactive dashboard using Svelte and D3.js to analyze tech and design job postings, visualizing skill demands, salary trends, and geographic distributions, empowering cross-field job seekers with actionable insights.

SKILLS & COURSES

Design & Visualization: Rhino, Grasshopper, TouchDesigner, Figma, Revit, Enscape, V-Ray, Photoshop, Illustrator, InDesign
Programming & Data: Python, JavaScript, HTML/CSS, Svelte, D3, ArcGIS, Comfy-UI, Excel
Additional Tools: Notion (advanced), Trello, Slack, Miro, Git, GitHub, Fologram, HoloLens

Relevant Coursework: Web development and Interactive Data Visualization (Java,Svelte,D3), Stable Diffusion and Projection Mapping, Foundations for Machine Learning, Intro to Deep Learning, Programming in Python