Chenyang Zhang website

CONTACT School of Interactive Computing **%** (217) 979-1621

INFORMATION College of Computing @ chenyang.zhang@gatech.edu

> Georgia Institute of Technology *i* www.chenyang.me Atlanta, GA 30308 USA X @chenyang_zh

RESEARCH **INTERESTS**

Human-Computer Interaction, AR/VR Interaction, Immersive Analytics, Spatial Computing,

Data Visualization, Creative Process

Georgia Institute of Technology, Atlanta, Georgia USA **EDUCATION**

> Ph.D. in Human-Centered Computing Aug. 2024 - present

Advisor: Yalong Yang

University of Illinois Urbana-Champaign, Urbana, Illinois USA

Master of Computer Science (MCS) GPA: 3.82/4.0 Aug. 2022 - Dec. 2023

Advisor: Elahe Soltanaghai, Sarah Sterman

Shanghai Tech University, Shanghai, Shanghai China

B.Eng. in Computer Science GPA: 3.57/4.0 Sep. 2018 - Jun. 2022

Advisor: Quan Li

RESEARCH **EXPERIENCE** Georgia Institute of Technology, Atlanta, Georgia USA

Graduate Research Assistant (Advisor: Yalong Yang)

2024 - present

I believe everyone should have the power to shape their own immersive experiences. My research includes: 1) designing intuitive embodied interactions for portable, low-cost VR, 2) creating accessible spatial content creation platforms to broaden creative participation, and 3) developing interaction models for *spatial content sharing* to enhance remote connections.

Harvard University, Visual Computing Group, Cambridge, Massachusetts USA

Research Assistant (Advisors: Zhutian Chen, Hanspeter Pfister)

2023

Adaptive situated visualization through human-AI collaboration. Designing a declarative visualization grammar compatible with LLMs, and an real-time controller to adapt the AR visualization according to designer's requirements and contextual information.

University of Illinois Urbana-Champaign, Urbana, Illinois USA

Graduate Research Assistant (Advisor: Elahe Soltanaghai)

2022 - 2023

Intuitive gaze-depth interaction for hands-free selection in VR. Developing a hands-free VR selection method that leverages binocular gaze depth information and conducting multiple user studies to improve usability and learnability through iterative design.

Graduate Research Assistant (Advisor: Sarah Sterman)

Qualitative study on values of documentation in creative learning process. Exploring the impact of documentation on teaching and learning in Physical Computing courses through open coding on course syllabi and semi-structured interviews with instructors.

Shanghai Tech University, Shanghai, China

Undergraduate Research Assistant (Advisor: Quan Li)

2021 - 2022

Visual analytics systems for e-commerce, medical research, and system programming.

Undergraduate Research Assistant (Advisor: Shenghua Gao)

2020 - 2021

Computer vision research on image segmentation applied for medical imaging.

INDUSTRY Google, Seattle, Washington USA

EXPERIENCE Student Researcher Summer 2025

Exploring spatial UI layout design for web browsing experience in XR headsets.

PUBLICATIONS

Chenyang Zhang, Tiffany S Ma, John Andrews, Eric J Gonzalez, Mar Gonzalez-Franco, Yalong Yang. ForcePinch: Force-Responsive Spatial Interaction for Tracking Speed Control in XR. In *The ACM Symposium on User Interface Software and Technology*.

UIST 2025 · Full Paper

Laixin Xie, **Chenyang Zhang**, Ruofei Ma, Xingxing Xing, Wei Wan, Quan Li. ASight: Fine-tuning Auto-Scheduling Optimizations for Model Deployment via Visual Analytics. In *IEEE Transactions on Visualization and Computer Graphics*.

TVCG · Journal Paper

Yang Ouyang, **Chenyang Zhang**, He Wang, Tianle Ma, Chang Jiang, Yuheng Yan, Zuoqin Yan, Xiaojuan Ma, Chuhan Shi, Quan Li. A Two-Phase Visualization System for Continuous Human-AI Collaboration in Sequelae Analysis and Modeling. In *IEEE Transactions on Visualization and Computer Graphics (Proc. VIS* 2024).

VIS 2024 · Short Paper

Chenyang Zhang*, Tiansu Chen*, Eric Shaffer, Elahe Soltanaghai. FocusFlow: 3D Gaze-Depth Interaction in Virtual Reality Leveraging Active Visual Depth Manipulation. In *The ACM CHI conference on Human Factors in Computing Systems*.

CHI 2024 · Full Paper

Chenyang Zhang*, Tiansu Chen*, Rohan Nedungadi, Eric Shaffer, Elahe Soltanaghai. FocusFlow: Leveraging Focal Depth for Gaze Interaction in Virtual Reality. In *The ACM Symposium on User Interface Software and Technology*.

UIST 2023 · Demo

Zhutian Chen, Chenyang Zhang, Qianwen Wang, Jakob Troidl, Simon Warchol, Johanna Beyer, Nils Gehlenborg, Hanspeter Pfister. Beyond Generating Code: Evaluating GPT on a Data Visualization Course. In *IEEE VIS Workshop on Visualization Education*, Literacy, and Activities.

VIS 2023 · EduVis Workshop

Yang Ouyang, Yuchen Wu, He Wang, **Chenyang Zhang**, Furui Cheng, Chang Jiang, Lixia Jin, Yuanwu Cao, Quan Li. Leveraging Historical Medical Records as a Proxy via Multimodal Modeling and Visualization to Enrich Medical Diagnostic Learning. In *IEEE Transactions on Visualization and Computer Graphics (Proc. VIS 2023)*.

VIS 2023 · Full Paper

Chenyang Zhang, Xiyuan Wang, Chuyi Zhao, Yijing Ren, Tianyu Zhang, Zhenhui Peng, Xiaomeng Fan, Xiaojuan Ma, Quan Li. PromotionLens: Inspecting Promotion Strategies of Online E-commerce via Visual Analytics. In *IEEE Transactions on Visualization and Computer Graphics (Proc. VIS 2022)*. VIS 2022 · Full Paper

PAPERS IN PREPARATION

Andrew Chen, Jinyoung Hur, **Chenyang Zhang**, Sarah Sterman. Documentation Reflects and Creates Community: Instructor Perspectives on Understanding Documentation in Physical Computing Education.

Under Review · Full Paper

CONFERENCE PRESENTATIONS

FocusFlow: 3D Gaze-Depth Interaction in Virtual Reality Leveraging Active Visual Depth Manipulation.

CHI 2024, Honolulu, Hawaii, USA.

PromotionLens: Inspecting Promotion Strategies of Online E-commerce via Visual Analytics. VIS 2022, Oklahoma City, Oklahoma, USA.

HONORS AND AWARDS

Shanghai Tech University Merit Student (top 2%)

Meritorious Winner of COMAP's Mathematical Contest in Modeling (top 7%)

Second Prize of Shanghai College Students Social Survey Competition

2019

TEACHING Shanghai Tech University, Shanghai, China

Teaching Assistant 2021 - 2022

Introduction to Information Science & Technology, Fall 2021. *Design Thinking and Social Design in China*, Fall 2021.

SKILLS

Kedu No. 1 Primary School, Qiannan Buyi and Miao Autonomous Prefecture, China

Volunteer Teacher Jul. 2019

Providing general education courses to primary school students, including science, art, sports and adolescent education. Fieldwork on China's poverty reduction initiatives. [presentation video]

Computer Science: Data Visualization, Computer Graphics, AI&ML, Web Programming.

Research: Human-Centered Design, Quantitative & Qualitative Research, Interview, Iterative Design.

Frameworks and Tools: Unity, WebXR, ARKit, Blender, Cinema 4D, Adobe Ae, Figma.

Languages: Mandarin Chinese, English, Visualization **(a)**. Python, C/C++, JavaScript.