

Yutong Yang

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EDUCATION

Shanghai Jiao Tong University

Master of Electronic and Information Engineering
Bachelor of French, Minor in Information Engineering

Shanghai, China

[Expected] Sep. 2022 – Mar. 2026
Sep. 2018 – June 2022

RESEARCH EXPERIENCE

Data Intelligence Visual Analytics Team, Shanghai Jiao Tong University

EmoGeoCity: City Evolution Study Based on Emotional Geography

Apr. 2023 – Feb. 2024

- Incorporated literary works into visual analytics for studying the history of a city.
- Leveraged emotion to connect multiple dimensions in cultural historical data, incorporating sentiment analysis for quantifying works' content and synthesizing overall emotional trends within specific contexts.

Inequity in Educational Growth: A Study on Post-80s Shanghai

Nov. 2022 – Nov. 2023

- Conducted regression analysis to identify regional and family background as significant correlation coefficients in educational attainment, explored their impacts, and proposed recommendations based on a qualitative analysis.
- Team leader and won first prize in Huiyuan national data analysis competition, awarded ¥10,000 prize.

MBTIviz: Visual Analysis of the Correlation Between Personality Traits and Demographics

Jan. 2022 – July 2022

- Designed a comprehensive demographic data view which integrates personality, career, gender and age.
- Implemented chart-based correlation analysis for personality, career, and region, replacing data tables.

LearnClusterVis: A Visual Analytics System for Education Data

June 2024 – Apr. 2025

- Participated in the design process to showcase learner's behavior and knowledge mastery through multiple views and in writing.

PKU Visualization and Visual Analytics Group, Peking University

City Pulse: Global Metro Line Development History

July 2023 – Aug. 2024

- Proposed the core design idea of encoding the city as a square, the metro route as a line, and using the width of the lines to represent the coverage of the routes.
- Developed the system of Global Metro Line Development History.
- The work was exhibited in China VISAP and shortlisted in Visual Data Storytelling contest, IEEE PacificVis ↗.

Extraction of Dialogue Characters in Classic Chinese Novels

Feb. 2023 – Present

- Automatic identification: utilized rule-based methods and LLMs to extract speakers and listeners.
- User interaction: designed and implemented a dialogue annotation system for editing extracted errors.
- Visualization: implemented a character dialogue network with nodes aggregating multiple references to the same character.

Visualizing the Reclassification of Knowledge in Mengxi Bitan

July 2024

- Proposed a Sankey and tree diagram variant to study the relationship between two books.
- Explored Mengxi Bitan's citations and reclassifications in ancient texts to understand changes in epistemology.

FDUVIS, Fudan University

Survey on Affective Geovisualization Design Through the Lens of People-Place Relationships

Nov. 2024 – Apr. 2025

- Studied the role of affective visualization design in people-place relationship.

Survey on Visual Rhetoric in Persuasive Cartography with Focus on Octopus Maps

Jan. 2025 – Apr. 2025

- Studied the visual rhetorical strategies of maps.

INTERNSHIP EXPERIENCE

Sahel and West Africa Club, Organisation for Economic Co-operation and Development (OECD)

Data Analyst

[Expected] May 2025 – Mar. 2026

- Data visualization and analysis about urbanisation, food and climate in Africa.
- Web design, including prototype creation, user interface improvement, and integration with visualization tools.

Editorial Department, Chu Chen Books

Editor

Oct. 2024 - Feb. 2025

- New media operations: content selection, editing and formatting.

PUBLICATION

- [1] X. Lan*, **Y. Yang*** and Y. Wang, ““Mapping What I Feel”: Understanding Affective Geovisualization Design Through the Lens of People-Place Relationships,” in *IEEE VIS 2025*. ↗
- [2] **Y. Yang**, Y. Liu, Q. Bai, T. Zhou, Z. Ye and X. Dong, “EmoGeoCity: Interactive Visual Exploration of City’s Historical and Cultural Evolution Based on Emotional Geography,” in *2024 IEEE 17th Pacific Visualization Conference (PacificVis)*, pp. 102-111, IEEE, 2024. ↗
- [3] X. Chen, Y. Zhang, **Y. Yang**, J. Chen, R. Xu, W. Chan and X. Yuan, “City Pulse: Revealing City Identity Through Abstraction of Metro Lines,” in *2024 IEEE VIS Arts Program (VISAP)*, pp. 1-16, IEEE, 2024. ↗
- [4] D. Lin, Y. Wang, **Y. Yang** and X. Lan, “Unveiling the Visual Rhetoric of Persuasive Cartography: A Case Study of the Design of Octopus Maps,” in *IEEE VIS 2025*. ↗
- [5] **Y. Yang**, Y. Guo, X. Dong, and X. Yuan, “Leveraging Human Expertise for LLM- Assisted Dialogue Character Extraction and Attribution in Classic Chinese Novel,” *Digital Humanities 2025 (DH2025)* Short Presentation Track, 2025.
- [6] Q. Bai, Z. Wu, Y. Liu, **Y. Yang**, J. Cao, and X. Dong, “LearnClusterVis: A Framework for Clustering-driven Visual Analysis of Programming Learners’ Learning Process,” *EuroVis Education Papers track*, 2025. ↗
- [7] **Y. Yang**, X. Dong, X. Tian, Y. Zhang and M. Zhou, “MBTIviz: A Visualization System for Research on Psycho-Demographics and Personality,” in *ICPCSEE 2023, Data Science*, pp. 259–276, Springer, 2023. ↗

AWARDS AND EXHIBITIONS

- Information is Beautiful Awards 2024.
- Shortlisted in Visual Data Storytelling contest, PacificVis 2024
- First prize in Visual Analytics Challenge, ChinaVis 2024
- The Second National Graphic Design Exhibition, 2025
- China VISAP’24 Art Exhibition, 2024
- Best Project Award in Visualization and Culture, China Digital Humanities 2024 (CDH2024)
- Honorable Award in Content Innovation Track, New Media Innovation and Creativity Competition, 2024
- First prize in Huiyuan National Data Analysis Competition, 2022

ACTIVITIES

- Member of *Art Center of the Student Union* at Shanghai Jiao Tong University, worked in photography, videography, interviewing, and party preparation, 2019-2020.
- Organized a social practice *Inequity in the Spatial and Temporal Distribution of Female and Male Public Restrooms*, 2019
- Member of the institute’s *Youth Volunteer Department*, involved in organizing and participating in volunteer teaching activity, 2019.
- Member of the School Singer Union, School Club, Nanyang Dance Club and Manaqua Theatre Club, participated in performances, 2018-2022.

OTHER EXPERIENCE

Undergraduate thesis: Research on the cultural adaptation of foreign teachers in Chinese universities

2022

- Identified correlations between cultural adaptation and factors such as teaching adaptation.
- Uncovered a conflict between student-centered and teacher-centered education for incompatibility.

Assistant Photographer and New Media Operations, Marketing Department, IVORY Bridal Gallery

2021

- Proposal planning and implementation, photography, and content editing.
- Main photographer for blogger promotion photos.

TECHNICAL SKILLS

Languages: Python, HTML/CSS, JavaScript

Technologies: D3.js, Flask, Tornado, Vue, React, GPT, Pytorch

LANGUAGES

English: IELTS 7.0 (Reading 7.5, Speaking 7.5, Listening 7.0, Writing 6.5)

French: DELF B2