Zhongzheng Xu

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Education

2025 – **University Maryland**, College Park, MD
Ph.D. in Computer Science, Advisor: *Dr. Fumeng Yang*

2023 – 2025 **Brown University**, Providence, RI
Sc.M in Computer Science, Advisor: *Dr. Jeff Huang*
Research: Text Visualization, Social Network Analysis, Human-computer Interaction

2019 – 2023 **Emory University**, Atlanta, GA
B.S in Computer Science, Advisor: *Dr. Emily Wall & Dr. Kristin Williams*
Research: Data Visualization, Accessibility, Perception

Publications

In Preparation **Zhongzheng Xu**, Shaniah Reece, Emily Wall, Kristin Williams. Comparing Perceptual Accuracy Benefits of Data Physicalization to Tabular and Visual Encodings for People who are Blind or Visually Impaired. [In Prep]

IEEE VIS 2024 **Zhongzheng Xu**, Emily Wall. Exploring the Capability of LLMs in Performing Low-Level Visual Analytic Tasks on SVG Data Visualizations. 2024 IEEE Visualization and Visual Analytics (VIS) Short Paper. IEEE, 2024.

PDF

IEEE VIS 2023 **Zhongzheng Xu**, Kristin Williams, and Emily Wall. Let's Get Vysical: Perceptual Accuracy in Visual & Tactile Encodings. 2023 IEEE Visualization and Visual Analytics (VIS) Short Paper. IEEE, 2023.

PDF

Research Experience

2024 – Now **Research Assistant**, *Brown HCI Lab*.
Designed and developed visualizations for personal messaging data and social networks, including a user study and evaluation plan to assess their effectiveness.

2024 **Research Assistant**, *Emory EMBI Lab.*
Designed and developed an interactive system enabling users to manipulate data visualizations on a projector through touch input using RFID-based paper widgets.

2022 – 2023 **Research Assistant**, *Emory CAV Lab.*
Conducted a comparative study on the perceptual accuracy of visual versus tactile data encodings, providing empirical evidence for designing tactile data visualizations.

Work Experience

2021 **Software Engineer Intern**, *Hongmu AI Inc.*
Collaborated with a mobile game development team to convert free image sources into pencil sketches using OpenCV and Anime2Sketch, preparing game assets.

2021 **Data Analyst Intern**, *Allied Millennial Partners.*
Conducted small business planning and market research on customer and market trends, culminating in a Tableau dashboard.

2020 **Data Analyst Intern**, *PriceWaterhouseCoopers (PwC).*
Analyzed datasets and developed predictive model for an online influencer company to identify factors influencing view and gift counts, using linear regression and XGBoost.

Talks

2024 **Presentation**, *IEEE VIS 2024.*
Presented a talk (virtually) on paper *Exploring the Capability of LLMs in Performing Low-Level Visual Analytic Tasks on SVG Data Visualizations*

🎥 Video

2023 **Presentation**, *IEEE VIS 2023.*
Presentend a talk (virtually) on paper *Let's Get Vysical: Perceptual Accuracy in Visual & Tactile Encodings.*

🎥 Video

Skills & Courses

Skills Java, Python , R, C, C#, JavaScript, Huggingface, Arduino, TensorFlow, OpenCV

Courses Deep Learning, Embedded Systems, Computer Vision, Computer Graphics, Data Visualization, Software Security, Machine Learning

Extracurricular & Awards

Volunteer IEEE VIS 2024 Student Volunteer

Awards PHI ETA SIGMA National Honor Society

Paper CHI 2025
Reviews