
Education

- 2017 – 2023 **Ph.D.** in Computer Science
The Hong Kong University of Science and Technology
◦ Advisor: Prof. Huamin Qu
◦ Research Interests: **Information Visualization** and **Data Interaction**
◦ Thesis: “Interactive Visualization Systems for Narrative-driven Data Exploration and Communication”
- 2014 – 2017 **Master of Engineering** in Computer Science
University of Chinese Academy of Sciences
◦ Advisor: Prof. Hui Huang
◦ Thesis: “High-level Understanding of 3D Models Based on Style Analysis”
- 2010 – 2014 **Bachelor of Engineering** in Computer Science
Sichuan University
◦ Thesis: “Design and Implementation of Skeleton-based 3D Model Deformation”

Work Experience

- 03/2024 – Present **Research Scientist**
Data Intelligence Innovation Lab, Huawei Cloud
◦ Developed visualization analysis and report AI agent services
◦ Responsible for implementing cutting-edge visualization systems in internal products
- 08/2022 – 04/2023 **Research Intern**
Data Intelligence Innovation Lab, Huawei Cloud
◦ Mentor: Dr. Ke Xu
◦ Led the research on leveraging natural language to support the authoring of visual network stories
◦ Prototype development for supply chain with geospatial network data
- 04/2022 – 07/2022 **Software Development Intern**
Data Platform, ByteDance
◦ Designed and developed the animation module for data visualization authoring
- 11/2021 – 04/2022 **Research Intern**
Data, Knowledge & Intelligence Group, Microsoft Research Asia
◦ Mentor: Dr. Yun Wang & Dr. Haidong Zhang
◦ Led the research on design space of camera movements in geographic data videos and the system development for simplifying the creation process of camera movements

- 08/2019 – 04/2020 **Research Intern**
Data, Knowledge & Intelligence Group, Microsoft Research Asia
- Mentor: Dr. Yun Wang
 - Research on a systematic framework for automatic generation of animated transition between statistical charts
- 04/2016 – 07/2017 **Research Assistant**
Visual Computing Research Center, Shenzhen University
- Mentor: Prof. Ruizhen Hu & Prof. Hui Huang
 - Research on learning and transferring part mobility to new shapes
 - Developed a system for locating regions of 3D shapes that define particular styles

Publications

Wenchao Li, Zhan Wang, Yun Wang, Di Weng, Liwenhan Xie, Siming Chen, Haidong Zhang, and Huamin Qu, “GeoCamera: Telling Stories in Geographic Visualizations with Camera Movements”. *In Proc. of ACM CHI*, 2023.

Wenchao Li, Sarah Schöttler, James Scott-Brown, Yun Wang, Siming Chen, Huamin Qu, and Benjamin Bach, “NetworkNarratives: Data Tours for Visual Network Exploration and Analysis”. *In Proc. of ACM CHI*, 2023.

Wenchao Li, Yun Wang, He Huang, Weiwei Cui, Haidong Zhang, Huamin Qu, and Dongmei Zhang, “AniVis: Generating Animated Transitions Between Statistical Charts with a Tree Model”. *arXiv preprint arXiv:2106.14313*, 2021.

Wenchao Li, Yun Wang, Haidong Zhang, and Huamin Qu, “Improving Engagement of Animated Visualization with Visual Foreshadowing”. *In Proc. of IEEE VIS Short Papers*, 2020.

Ruizhen Hu, **Wenchao Li**, Oliver van Kaick, Hui Huang, Ariel Shamir, and Hao Zhang, “Learning to Predict Part Mobility from a Single Static Snapshot”. *ACM Trans. on Graphics (SIGGRAPH Asia)*, Vol. 36, No. 6, Article 227, 2017.

Ruizhen Hu, **Wenchao Li**, Oliver van Kaick, Hui Huang, Melinos Averkiou, Daniel Cohen-Or, and Hao Zhang, “Co-Locating Style-Defining Elements on 3D Shapes”. *ACM Trans. on Graphics*, Vol. 36, No. 4, Article 50a, 2017.

Project Experience

- 12/2022 – 08/2023 **Progressive Visual Network Story Generation**, *Research project*.
- Developed a human-machine collaborative system that leverages natural language to support progressive authoring visual network story
 - Programming: D3.js, G6, TypeScript, React
- 01/2022 – 12/2022 **Geographic data video generation with camera movements**, *Research project*.
- Developed an interactive prototype system to simplify the creation process of expressive camera movements for geographic data videos
 - Programming: deck.gl, TypeScript, Tailwind CSS, React
- 12/2020 – 12/2022 **Guided walkthroughs for visual network exploration**, *Research project*.
- Developed an online system that supports semi-automatically generated walkthroughs for network exploration and analysis (networknarratives.github.io)
 - Programming: Vistorian, Flowmap.gl, TypeScript, React
- 08/2019 – 06/2021 **Automatic generation of animated transitions**, *Research project*.

- Developed a systematic approach that automatically generates animated transitions between statistical charts
 - Programming: D3.js, TypeScript, Bootstrap
- 06/2018 – 07/2020 **Enhancing animated visualizations with foreshadowing**, *Research project*.
 - Designed and evaluated the effectiveness of visual foreshadowing techniques in animated visualization
 - Programming: D3.js, JavaScript, Python
- 09/2016 – 07/2017 **Predicting part mobilities from static snapshots**, *Research project*.
 - Designed and computed geometric descriptors, experimented algorithm's parameters, and implemented two applications
 - Programming: C++, Qt, OpenGL, MATLAB
- 09/2015 – 09/2016 **Co-Locating style-defining elements on 3D shapes**, *Research project*.
 - Preprocessed the 3D shapes, computed and visualized the local features for training, and conducted two user studies
 - Programming: C++, Qt, OpenGL

Honors and Awards

- 2023 **Gary Marsden Travel Awards**, *ACM SIGCHI*.
- 2016 **Excellent Student Leader**, *University of Chinese Academy of Sciences*.
- 2015 **Merit Student**, *University of Chinese Academy of Sciences*.
- 2015 **Third Prize(Ranked 5th)**, *ChinaVis Data Challenge*.
- 2014 **Outstanding Graduate**, *Sichuan University*.
- 2014 **Excellent Graduation Project(Top 5%)**, *Sichuan University*.
- 2012 **National Scholarship(Top 2%)**, *Ministry of Education of the P.R.China*.

Teaching Experience

- Spring 2020 **Teaching Assistant**, *COMP 4462 : Data Visualization*, The Hong Kong University of Science and Technology.
- Fall 2018 **Teaching Assistant**, *COMP 5631 : Cryptography and Security*, The Hong Kong University of Science and Technology.
- Spring 2017 **Teaching Assistant**, *20162-1502980001: Introduction to Visual Information Processing*, Shenzhen University.
- Fall 2016 **Teaching Assistant**, *20161-1500610001: Computer Graphics*, Shenzhen University.

Community Involvement

- Reviewer**, *ACM Conference on Human Factors in Computing Systems (CHI)*.
- Reviewer**, *IEEE Transactions on Visualization and Computer Graphics (TVCG)*.
- Reviewer**, *China Visualization and Visual Analytics Conference (ChinaVis)*.
- Student Volunteer**, *SIGGRAPH Asia 2014*.

Skills

- Programming Proficient in JavaScript/TypeScript, HTML, CSS, Python, C/C++, SQL
- Toolkit D3.js, Vega-Lite, Three.js, Webpack, Antd for React, Tailwind CSS, Qt, OpenGL
- Languages Mandarin(native), Cantonese(native), English(professional working proficiency)