Lijie Yao 姚李捷

Ph.D. M.Sc. Ing. B.Eng.

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ABOUT ME

I am an **Assistant Professor** at **Xi'an Jiaotong-Liverpool University**. I obtained my Ph.D. degree from **Université Paris-Saclay**. My work received the **Ph.D. Thesis Prize** from AFIHM and **Canada Mitacs Globalink Research Award**. Part of my work on *visualization in motion* was applied in the **2024 Paris Olympics** swimming races. Previously, I was a postdoctoral and doctoral researcher at **INRIA** and a visiting researcher at **University of Calgary**. My research interests include *visualization in motion*, *AI-assisted data communication*, and *human-AI interaction*. Collaboration emails are more than welcome.

EDUCATION

Université Paris-Saclay   Gif-sur-Yvette, France   Sept. 2020 – Dec. 2023
Doctor of Philosophy – Computer Science

- Supervisors: Petra Isenberg & Anastasia Bezerianos
- Thesis Topic: Situated Visualization in Motion
- Research Focus: Visualization in motion, perception, visual design

Université Paris-Saclay   Gif-sur-Yvette, France   Sept. 2019 – Aug. 2020
Master of Science – Computer Science

- Supervisors: Petra Isenberg
- Thesis Topic: Situated Visualization in Motion
- Research Focus: Visualization in motion, perception, visual design

Polytech Lille   Lille, France   Sept. 2017 – Aug. 2019
Diplôme d'ingénieur (= Master of Engineering) – Electrical Engineering and Automation

- Supervisors: Komi Midzodzi Pekpe
- Thesis Topic: Position Control of A Drone
- Research Focus: Embedded systems, automatic control

XIDIAN University | 西安电子科技大学   Xi'an, China   Aug. 2014 – June 2017
Bachelor of Engineering – Electronic Information Engineering

- Supervisors: Xavier Redon & Alexandre Boé
- Thesis Topic: Electronic Necklace for Health Monitoring
- Research Focus: Embedded systems, microelectronics

WORK EXPERIENCE

Assistant Professor   Xi'an Jiaotong-Liverpool University   July 2024 – Present
Suzhou, Jiangsu, China

- Xi'an Jiaotong-Liverpool University is a Chinese private university founded in 2006 as a joint venture between the University of Liverpool and Xi'an Jiaotong University.
- My duties include research, teaching, and academic/administrative services.

Postdoctoral Researcher   Inria   Jan. 2024 – March 2024

Gif-Sur-Yevette, Île-de-France, France

- Inria is a French national institution for research in digital science and technology. It is ranked 18th in the global research institution and 7th in computer science.

- My duties included reviewing literature, conducting experiments, and writing papers.

Visiting Researcher   University of Calgary   July 2023 – Oct. 2023

Calgary, Alberta, Canada

- The University of Calgary is a Canadian public research university founded in 1908, prior to being instituted into a separate, autonomous university in 1966.

- My duties included reviewing literature and conducting experiments.

Teaching Assistant   Université Paris-Saclay   Sept. 2021 – Aug. 2023

Gif-Sur-Yevette, Île-de-France, France

- The Université Paris-Saclay is a french combined technological research institute and public research university. It is ranked 13th in the ARWU 2025 and 70th in QS 2026.

- My duties included reviewing literature and conducting experiments.

Doctoral Researcher   Inria   Sept. 2020 – Dec. 2023

Gif-Sur-Yevette, Île-de-France, France

- Inria is a French national institution for research in digital science and technology. It is ranked 18th in the global research institution and 7th in computer science.

- My duties included reviewing literature, conducting experiments, writing papers, advising students, and presenting.

PEER-REVIEWED PUBLICATIONS

* Corresponding author, † These authors contribute equally. List order: reverse chronology.

Journals

1. `JCR Q1/CCF-A` **Lijie Yao***, Federica Bucchieri, Victoria McArthur, Anastasia Bezerianos, Petra Isenberg. User Experience of Visualizations in Motion: A Case Study and Design Considerations. *IEEE Transactions on Visualization and Computer Graphics (TVCG)*, 2025, 31 (1), pp.174-184. DOI: 1109/TVCG.2024.3456319.

2. `JCR Q3` **Lijie Yao***. Situated Visualization in Motion. *IEEE Computer Graphics and Applications (CG&A)*. 2024, 44(6), pp.142-150. DOI: 10.1109/MCG.2024.3462129.

3. `JCR Q1/CCF-A` **Lijie Yao***, Romain Vuillemot, Anastasia Bezerianos, Petra Isenberg. Designing for Visualization in Motion: Embedding Visualizations in Swimming Videos. *IEEE Transactions on Visualization and Computer Graphics (TVCG)*, 2024, 30 (3), pp.1821-1836. DOI: 10.1109/TVCG.2023.3341990.

4. `JCR Q1/CCF-A` **Lijie Yao***, Anastasia Bezerianos, Romain Vuillemot, Petra Isenberg. Visualization in Motion: A Research Agenda and Two Evaluations. *IEEE Transactions on Visualization and Computer Graphics (TVCG)*, 2022, 28(10), pp.3546-3562, DOI: 10.1109/TVCG.2022.3184993.

Conferences

5. Wanfang Xu, Jifan Yang, Fengwen Zhang, Yu Lu, **Lijie Yao**, Le Liu, Lingyun Yu*. Touch, Sound, and Space: Exploring Immersive Music Interaction through AI-Generated Environments. *International Symposium on Visual Information Communication and Interaction (VINCI)*, Dec. 2025, Linz, Austria. To appear.

6. `CCF-A` Haonan Yao, Lingyun Yu, **Lijie Yao***. Designing Visualization Widgets for Tangible Data Exploration: A Systematic Review. *IEEE Visualization & Visual Analytics (IEEE VIS)*, Nov. 2025, Vienna, Austria. To appear.

7. **Lijie Yao***, Yuming Zhang, Yu Liu. Input Physicalization in Practice: An Instructional Walkthrough with Visualization

Novices. *IEEE VIS workshop on Input Visualization*, Nov. 2025, Vienna, Austria. Link: osf.io/dfgvx

8. Qi Guo[†], Junyi Li[†], Jiayi Hong, **Lijie Yao***. Early Exploration into AI-Assisted Visual Analytics for Dynamic Videos. *IEEE VIS workshop on GenAI, Agents, and the Future of VIS*, Nov. 2025, Vienna, Austria. Link: visxgenai.github.io/subs-2025/1558/1558-doc.pdf

9. Junhao Zhao, **Lijie Yao***. Structured AI Agents for Reliable Visualization Report Generation. *IEEE VIS workshop on GenAI, Agents, and the Future of VIS*, Nov. 2025, Vienna, Austria.

10. `Honorable Mention` **Lijie Yao***. Visualization in Motion: Perception, Design, and User Experience. *Posters of ChinaVis 2025*, July 2025, Hangzhou, China.

11. `CCF-A` Fairouz Grioui*, Tanja Blascheck, **Lijie Yao**, Petra Isenberg. Micro Visualizations on a Smartwatch: Assessing Reading Performance While Walking. *IEEE Visualization & Visual Analytics (IEEE VIS)*, Oct. 2024, Florida, U.S. DOI: 10.1109/VIS55277.2024.00017.

12. Ahmed Elshabasi*, **Lijie Yao**, Petra Isenberg, Charles Perin, Wesley Willett. Collecting Information Needs for Egocentric Visualizations while Running. *IEEE VIS workshop on First-Person Visualizations for Outdoor Physical Activities*, Oct. 2024, Florida, U.S. DOI: 10.48550/arXiv.2409.06426.

13. Yvonne Jansen, Federica Bucchieri, Pierre Dragicevic, Martin Hachet, Morgane Koval, Léana Petiot, Arnaud Prouzeau, Dieter Schmalstieg, **Lijie Yao**, Petra Isenberg*. Envisioning Situated Visualizations of Environmental Footprints in an Urban Environment. *IEEE VIS workshop on Visualization for Social Good*, Oct. 2022, Oklahoma City, U.S. DOI: 10.5281/zenodo.7053934.

14. Alaul Islam[†], **Lijie Yao***[†], Anastasia Bezerianos, Tanja Blascheck, Tingying He, et al.. Reflections on Visualization in Motion for Fitness Trackers. *ACM MobileHCI workshop on New Trends in HCI and Sports*, Sep. 2022, Vancouver, Canada. DOI: 10.48550/arXiv.2409.06401.

15. Federica Bucchieri*, **Lijie Yao**, Petra Isenberg. Situated Visualization in Motion for Video Games. *Posters of the EuroVis*, Jun 2022, Rome, Italy. DOI: 10.2312/evp.20221119.

16. **Lijie Yao***, Anastasia Bezerianos, Romain Vuillemot, Petra Isenberg. Situated Visualization in Motion for Swimming. *Journée Visu 2022*, Jun 2022, Bordeaux, France. DOI: 10.48550/arXiv.2409.07695.

17. Federica Bucchieri*, **Lijie Yao**, Petra Isenberg. Visualization in Motion in Video Games for Different Types of Data. *JournéeVisu 2022*, Jun 2022, Bordeaux, France. DOI: 10.48550/arXiv.2409.07696.

18. **Lijie Yao***, Anastasia Bezerianos, Petra Isenberg. Situated Visualization in Motion. *Posters of the IEEE VIS*, Oct 2020, Salt Lake City, U.S.. 2020. DOI: 10.48550/arXiv.2409.07005.

Selected Proposals

19. Charles Perin*, Tica Lin, **Lijie Yao**, Yalong Yang, Maxime Cordeil, Wesley Willett. First-Person Visualizations for Outdoor Physical Activities: Challenges and Opportunities. *Selected proposals of workshop at IEEE VIS*, Oct. 2024, Florida, United States.

20. **Lijie Yao***. Situated Visualization in Motion. *Selected proposals of Doctoral Colloquium at IEEE VIS*, Oct. 2022, Oklahoma City, United States.

Thesis

21. **Lijie Yao***. Situated Visualization in Motion. Human-Computer Interaction [cs.HC]. Université Paris-Saclay, 2023. English. NNT: 2023UPASG093. URL: theses.hal.science/tel-04413122.

RESEARCH ACTIVITIES

Awards

- Poster Honorable Mention Award at ChinaVis   July 2025

- ACM AFIHM Ph.D. Thesis Prize   March 2024
- Canada Mitacs Globalink Research Award   May. 2023 - Oct. 2023

Organization

2026

- Organizing Committee, Community, Meetups, & Election Chair, *IEEE Visualization & Visual Analytics (IEEE VIS)*, Nov. 9-13, Boston, U.S.

2025

- Program Committee member for technical papers, *International Symposium on Visual Information Communication and Interaction (VINCI)*, Dec. 1-3, Linz, Austria.

- Program Committee member for full papers and posters, *IEEE Visualization & Visual Analytics (IEEE VIS)*, Nov. 2-7, Vienna, Austria.

- Program Committee member for short papers, *ACM Symposium on Eye Tracking Research & Applications (ETRA)*, May 26-29, Tokyo, Japan.

2024

- Co-organiser for workshop on First-Person Visualizations for Outdoor Physical Activities, *IEEE visualization & Visual Analytics (IEEE VIS)*, Oct. 13, Florida, U.S.

Review

- 2026: CHI, PacificVis (TVCG journal track), ETRA, HRI

- 2025: CHI, VIS, EuroVis, TVCG, ISMAR, UIST, ETRA, HRI, NSERC, ChinaVis, IWC, VINCI

- 2024: CHI, VIS, EuroVis, TVCG, TSMC, ETRA, alt.chi, IMX, HRI, SAIS, ISS, MobileHCI, ETVIS

- 2023: CHI, VIS, EuroVis, CHI LBW

- 2022: VIS, SIGGRAPH Asia

TEACHING

Awards

- 2 × Excellent SURF Poster Awards, 1 × Student-nominated Winner   Sep. 2025
- Second Prize in XIPU "AI in Education" Competition   Feb. 2025

Year	Course Name	Level	Student Numbers	Teaching Language
Xi'an Jiaotong-Liverpool University				
2024/now	Foundations of Computer Science and Engineering	Undergraduate	720	English
	Microprocessor		550	
Université Paris-saclay				
2021/2023	Interactive Information Visualization	Graduate	50	English

LANGUAGES

- Chinese (Mandarin): Native Fluency

- English: Advanced Proficiency

- French: Advanced Proficiency

SUPERVISION

Year	Degree-granting Institution	Program	Student (F/M)	Outcomes	Next Step
Graduate					
2025/now	University of Liverpool	MSc	Yiming Zhang		
			Shiyuan Jiang		
			Zehong Ye		
			Yihan Dong (F)		
			Fanhua Liu		
2024/now		MRes	Yuzhu Chen (F)		
2021/22	Université Paris-Saclay	MSc	Federica Bucchieri (F)	1 × TVCG full paper 1 × EuroVis poster 1 × JournéeVisu poster	Work in industry
Under-graduate					
2025/now	Xi'an Jiaotong-Liverpool University & University of Liverpool	BEng	Haochen Yan	1 × Excellent SURF Award 1 × Student-nominated Winner	
			Ziyuan Wang	1 × Excellent SURF Award	
			Weixin Xiong (F)	1 × Excellent SURF Award	
			Yating Wu (F)		
			Xiaoran Zhao (F)		
			Xiaoyu Li (F)		
		BSc	Ruoxi Liao (F)	1 × Excellent SURF Award 1 × Student-nominated Winner	
			Tiantian Ye (F)		
			Xi Zhou (F)		
2024/25		BEng	Xing Wei		Master at USYD
			Yuming Zhang	1 × IEEE VIS workshop paper	Work in industry
			Yongxuan Teng		Work in industry
			Dingkang Yang		Master at USYD
Others					
2025	*none*	SURF	Qi Guo (F)	1 × IEEE VIS workshop paper 1 × Excellent SURF Award 1 × Student-nominated Winner	
			Junyi Li (F)	1 × IEEE VIS workshop paper 1 × Excellent SURF Award 1 × Student-nominated Winner	
			Ziyi Jin (F)	1 × Excellent SURF Award	
			Xun Gong (F)	1 × Excellent SURF Award	
			Jingyu Wang (F)	1 × Excellent SURF Award 1 × Student-nominated Winner	
2024/25		*none*	Haonan Yao	1 × IEEE VIS short paper	PhD at UNNC (full-scholarship)

Year	Degree-granting Institution	Program	Student (F/M)	Outcomes	Next Step
2024/now			Junhao Zhao	1 × IEEE VIS workshop paper	