

# 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

<b>Université Paris-Saclay</b>	Gif-sur-Yvette, France	Sept. 2020 – Dec. 2023
Doctor of Philosophy – Computer Science		
<ul style="list-style-type: none"><li>Supervisors: Petra Isenberg &amp; Anastasia Bezerianos</li><li>Thesis Topic: Situated Visualization in Motion</li><li>Research Focus: Visualization in motion, perception, visual design</li></ul>		
<b>Université Paris-Saclay</b>	Gif-sur-Yvette, France	Sept. 2019 – Aug. 2020
Master of Science – Computer Science		
<ul style="list-style-type: none"><li>Supervisors: Petra Isenberg</li><li>Thesis Topic: Situated Visualization in Motion</li><li>Research Focus: Visualization in motion, perception, visual design</li></ul>		
<b>Polytech Lille</b>	Lille, France	Sept. 2017 – Aug. 2019
Diplôme d'ingénieur (= Master of Engineering) – Electrical Engineering and Automation		
<ul style="list-style-type: none"><li>Supervisors: Komi Midzodzi Pekpe</li><li>Thesis Topic: Position Control of A Drone</li><li>Research Focus: Embedded systems, automatic control</li></ul>		
<b>XIDIAN University   西安电子科技大学</b>	Xi'an, China	Aug. 2014 – June 2017
Bachelor of Engineering – Electronic Information Engineering		
<ul style="list-style-type: none"><li>Supervisors: Xavier Redon &amp; Alexandre Boé</li><li>Thesis Topic: Electronic Necklace for Health Monitoring</li><li>Research Focus: Embedded systems, microelectronics</li></ul>		

## WORK EXPERIENCE

<b>Assistant Professor</b>	Xi'an Jiaotong-Liverpool University	July 2024 – Present
Suzhou, Jiangsu, China		
<ul style="list-style-type: none"><li>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.</li><li>My duties include research, teaching, and academic/administrative services.</li></ul>		

**Postdoctoral Researcher**

Inria

Jan. 2024 – March 2024

Gif-Sur-Yvette, 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-Yvette, Île-de-France, France

- The Université Paris-Saclay is a french combined technological research institute and public research university. It is ranked 13<sup>th</sup> in the ARWU 2025 and 70<sup>th</sup> in QS 2026.
- My duties included reviewing literature and conducting experiments.

**Doctoral Researcher**

Inria

Sept. 2020 – Dec. 2023

Gif-Sur-Yvette, Île-de-France, France

- Inria is a French national institution for research in digital science and technology. It is ranked 18<sup>th</sup> in the global research institution and 7<sup>th</sup> 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. To appear.
8. Qi Guo<sup>†</sup>, Junyi Li<sup>†</sup>, 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. To appear.
  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. To appear.
  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<sup>†</sup>, **Lijie Yao\***<sup>†</sup>, 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. *Journée-Visu 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

- Honorable Mention Award at ChinaVis July 2025
- ACM AFIHM Ph.D. Thesis Prize March 2024

## Organization

### 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, HRI
- 2025: CHI, VIS, EuroVis, ISMAR, UIST, ETRA, HRI, NSERC, ChinaVis, IwC, VINCI
- 2024: CHI, VIS, EuroVis, TVCG, ETRA, alt.chi, IMX, HRI, TSMCS, 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		550-750	
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	