LIJIE YAO

Dr. 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**, supervised by Dr. Petra Isenberg and Prof. Anastasia Bezerianos. My dissertation on *Situated Visualization in Motion* received the **Ph.D. Thesis Prize** from AFIHM (annual recipient: 2). Previously, I was a postdoctoral and doctoral researcher at **INRIA**, AVIZ team, and a visiting researcher at **University of Calgary** hosted by Dr. Wesley Willett. My research interests include **visual analytics and visualization**, focusing on **visualization in motion**. I always explore the impact of motion characteristics and spatial factors on the perception, design, and user experience of visual representations.

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 teaching (about 40%), research (about 40%), and some services (about 20%).

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 12th in the ARWU 2024 and 73rd in QS 2025.
- 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, monitoring students, and presenting at conferences.

Université Paris-Saclay

Gif-sur-Yvette, France

Sept. 2020 – Dec. 2023

Ph.D. - 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 Sicence - 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) – Electrical Engineering and Automation

• Supervisors: Komi Midzodzi Pekpe

• Thesis Topic: Position Control of A Drone

• Research Focus: Embedded systems, automatic control

XIDIAN University 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

AWARDS AND GROUP MEMBERSHIPS

Awards

• AFIHM Ph.D. Thesis Prize France March 2024

• Mitacs Globalink Research Award Canada May 2023

Group Memberships

• IEEE Professional Membership U.S.A. Aug. 2024 – Present

• ACM Professional Membership U.S.A. Sept. 2024 – Present

SUPERVISION

Postgraduate Level

Haonan Yao, Xi'an Jiaotong-Liverpool University, co-supervised with Dr. Lingyun Yu, 08/2024 – present.

Graduate Level

• Federica Bucchieri, *Situated Visualization in Motion for Video Games*, University Paris-Saclay, co-supervised with Dr. Petra Isenberg, 03/2022 – 09/2022.

Undergraduate Level

- Jiachen Jiang, Visualization in Motion in Metaverse, XJTLU, 09/2024 present.
- Xing Wei, Physicalization in Practice: The Embodiment of Emotions, XJTLU, 09/2024 present.
- Yuming Zhang, Physicalization in Practice: Record the Highlights of My Life, XJTLU, 09/2024 present.
- Yongxuan Teng, Visualization in Motion: A Systematic Review, XJTLU, 09/2024 present.

- Yingkai Xu, *Ubiquitous Visualization*, XJTLU, 09/2024 present.
- Dingkang Yang, Physicalization in Practice: My Carbon Emissions, XJTLU, 09/2024 present.

RESEARCH ACTIVITIES

Organization

• 2024: First-Person Visualizations for Outdoor Physical Activities workshop held as a part of IEEE VIS

Review

- 2025: CHI, HRI
- 2024: CHI, VIS, EuroVis, TVCG, ETRA, alt.chi, IMX, HRI, TSMCS, SAIS, ISS, MobileHCI, ETVIS
- 2023: CHI, VIS, EuroVis
- 2022: VIS, SIGGRAPH Asia

TEACHING

Xi'an Jiaotong-Liverpool University

Suzhou, China

Sept. 2024 - Present

- Undergraduate level: SAT006 Foundations of Computer Science and Engineering (around 720 students)
- Undergraduate level: CPT210 Microprocessor (around 420 students)

Université Paris-Saclay

Gif-sur-Yvette, France

Sept. 2021 - Aug. 2023

• Graduate level: Interactive Information Visualization (around 50 students)

PUBLICATIONS

- 1. **Lijie Yao***. Situated Visualization in Motion. *IEEE Transactions on Visualization and Computer Graphics*. In press. DOI: 10.1109/MCG.2024.3462129.
- 2. **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*. In press. DOI:1109/TVCG.2024.3456319.
- 3. **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*, 2024, 30 (3), pp.1821-1836. DOI:10.1109/TVCG.2023.3341990.
- Lijie Yao*, Anastasia Bezerianos, Romain Vuillemot, Petra Isenberg. Visualization in Motion: A Research Agenda and Two Evaluations. *IEEE Transactions on Visualization and Computer Graphics*, 2022, 28(10), pp.3546-3562, DOI: 10.1109/TVCG.2022.3184993.
- 5. Fairouz Grioui*, Tanja Blascheck, **Lijie Yao**, Petra Isenberg. Micro Visualizations on a Smartwatch: Assessing Reading Performance While Walking. *Short papers of the IEEE Conference on Visualization*, Oct. 2024, Florida, United States. To appear.
- 6. Ahmed Elshabasi*, **Lijie Yao**, Petra Isenberg, Charles Perin, Wesley Willett. Collecting Information Needs for Egocentric Visualizations while Running. *In Proceeding of the First-Person Visualizations for Outdoor Physical Activities workshop at IEEE VIS*, Oct. 2024, Florida, United States. To appear.
- 7. 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. *In Proceedings of the Visualization for Social Good workshop at IEEE VIS*, Oct. 2022, Oklahoma City, United States. DOI: 10.5281/zenodo.7053934.
- 8. Alaul Islam, **Lijie Yao***, Anastasia Bezerianos, Tanja Blascheck, Tingying He, et al.. Reflections on Visualization in Motion for Fitness Trackers. *In proceeding of the New Trends in HCI and Sports workshop at MobileHCI*, Sep. 2022, Vancouver, Canada.

- 9. **Lijie Yao***, Anastasia Bezerianos, Romain Vuillemot, Petra Isenberg. Situated Visualization in Motion for Swimming. *Journée Visu* 2022, Jun 2022, Bordeaux, France.
- 10. Federica Bucchieri*, **Lijie Yao**, Petra Isenberg. Visualization in Motion in Video Games for Different Types of Data. *JournéeVisu* 2022, Jun 2022, Bordeaux, France.
- 11. 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.
- 12. **Lijie Yao***, Anastasia Bezerianos, Petra Isenberg. Situated Visualization in Motion. *Posters of the IEEE VIS*, Oct 2020, Salt Lake City, United States. 2020.

LANGUAGES

• Chinese (Mandarin): Native Fluency

• English: Advanced Proficiency

• French: Advanced Proficiency