

Xi WANG

CONTACT INFORMATION

Team VISTA, LIX, Ecole Polytechnique
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[Bio Page](#)

EDUCATION

Ph.D., Computer Science, Univ. of Rennes I, Inria/Irisa, France **2018–2022**

Supervisors: Prof. Eric Marchand, Prof. Marc Christie

Thesis: *Robustness of vSLAM techniques to light changing conditions*

Award: [2nd Prize of PhD Thesis Foundation Rennes 1](#)

M.Sc., Electronics, Univ. of Paris-Saclay/École Supérieure d'Électricité, France **2015–2016**

Major: Automatic, Signal and Image Processing

Dipl.-Ing., Electrics and Electronics, Univ. of Paris-Sud, France **2013–2016**

Engineering School: Polytech Paris-Sud

Polytech Excellence Scholarship: For outstanding academic performance (3%)

B.Eng., Electronics, Xidian Univ., China **2010–2014**

Major: Electronical Information: Antenna and microwave

RESEARCH INTERESTS

vSLAM, 3D Reconstruction, Computational Cinematography, NeRF, Generative Models, Animation

PROFESSIONAL EXPERIENCE

Postdoctoral Researcher, [VISTA](#), LIX, Ecole Polytechnique, Palaiseau, France **2023–now**

Topics: Neural Radiance Field (NeRF); Generative Model; Computational Cinematography.

Supervised by: Prof. [Vicky Kalogeiton](#)

Postdoctoral Researcher, Inria/IRISA, Univ. Rennes 1, Rennes, France **2022–2023**

Topics: Neural Radiance Field (NeRF); virtual camera control; human motion.

Participated in EU H2020 Project: [Invictus](#)

Research Internship, Beijing Film Academy, Peking Univ., Lab [AICFVE](#), China **2019–2021**

Collaborators: Dr. Bin Wang, Prof. Baoquan Chen and Hongda Jiang

Topics: Deep neural network driven animation and virtual camera control

Research Engineer Internship, Company [Solidanim](#), France **2019–2020**

Topics: Augmented reality, optic calibration and on-set Previs system

Created optics calibration, hand-eye calibration, trajectory filtering, IMU sync toolbox

Teaching Assistant, Univ. of Rennes I, France **2019–2020**

Courses: Image Processing (spring 19, spring 20), Augmented Reality (fall 19, fall 20)

Research Engineer, Inria Rennes/IRISA, France **2017–2018**

Topics: vSLAM robustness under light changing condition

Prepared for Ph.D candidacy in the team

PUBLICATIONS

10. Bourel, F., **Wang, X.**, Teng, E., Ortenzi, V., Myhill, A., Christie, M., *Real-time Computational Cinematographic Editing for Broadcasting of Volumetric-captured events: an Application to Ultimate Fighting, Proceedings of the 16th ACM SIGGRAPH Conf. on Motion, Interaction and Games (MIG), 2023* , **Best Paper Award**
9. Courant, R., **Wang, X.**, Christie, M., Kalogeiton, V., *BluNF: Blueprint Neural Field, Proceedings of the IEEE/CVF Intl. Conf. on Computer Vision (ICCV) Workshop, 2023*
8. **Wang, X.**, Courant, R., Shi, J., Marchand, E., Christie, M. *JAWS: Just A Wild Shot for Cinematic Transfer in Neural Radiance Fields, Proceedings of the IEEE/CVF Conf. on Computer Vision and Pattern Recognition (CVPR), 2023*
7. **Wang, X.**, Christie, M., Marchand, E. *Binary Graph Descriptor for Robust Relocalization on Heterogeneous Data, IEEE Robotics and Automation Letters (RA-L), 2022*
6. Jiang, H.*, Christie, M., **Wang, X.**, Liu, L., Wang, B., Chen, B. *Camera Keyframing with Style and Control, ACM Transactions on Graphics (Proceedings of SIGGRAPH ASIA) 2021*
5. **Wang, X.**, Christie, M., Marchand, E. *TT-SLAM: Dense Monocular SLAM for Planar Environments, IEEE Intl. Conf. on Robotics and Automation (ICRA) 2021*
4. **Wang, X.**, Christie, M., Marchand, E. *Relative Pose Estimation and Planar Reconstruction via Superpixel-Driven Multiple Homographies, IEEE/RSJ Intl. Conf. on Intelligent Robot Systems (IROS) 2020* , **RoboCup Best Paper Award Finalist**
3. Jiang, H.*, Wang, B.*, **Wang, X.**, Christie, M., Chen, B. *Example-driven virtual cinematography by learning camera behaviors, ACM Transactions on Graphics (Proceedings of SIGGRAPH) 2020*
2. **Wang, X.**, Christie, M., Marchand, E. *Optimized Contrast Enhancements to Improve Robustness of Visual Tracking in a SLAM Relocalisation Context, Proceedings of IEEE/RSJ Intl. Conf. on Intelligent Robot Systems (IROS) 2018*
1. **Wang, X.**, Christie, M., Marchand, E. *Multiple layers of contrasted images for robust feature-based visual tracking, Proceedings of IEEE Intl. Conf. on Image Processing (ICIP) 2018*

INVITED TALKS

- Invited Talks on "Computer vision and Computational Cinematography", Nov 2023, seminar Softskills of DataAI IP Paris, Paris, France
- Invited Talks on "An Odyssey to Computational Cinematography", June 2023, Dell Tech Generations, Shanghai, China
- Invited Talks on "From SLAM Robustness to Computational Cinematography", April 2023, LIX, École Polytechnique, Palaiseau, France