

Jingxi Chen

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Education

- The University of Maryland - College Park Maryland, USA
Ph.D. Student in Computer Science Fall 2022 - 2027 (Expected)
- The University of Maryland - College Park Maryland, USA
B.S. & M.S. in Computer Science Fall 2017 - Spring 2022

Research Interest

- Computer Vision, Video/Image Generative AI, 3D Vision, Robotics, Computational Photography

Publications

- [1] Jingxi Chen*, Zongxia Li*, Zhichao Liu, Guangyao Shi, Xiyang Wu, Fuxiao Liu, Cornelia Fermüller, Brandon Y. Feng, Yiannis Aloimonos, "First Frame Is the Place to Go for Video Content Customization", Accepted in **Conference on Computer Vision and Pattern Recognition (CVPR), 2026**. [[Project](#), [PDF](#)]
- [2] Jingxi Chen, Yixiao Zhang, Xiaoye Qian, Zongxia Li, Cornelia Fermüller, Caren Chen, Yiannis Aloimonos, "From Inpainting to Layer Decomposition: Repurposing Generative Inpainting Models for Image Layer Decomposition", Accepted in **Conference on Computer Vision and Pattern Recognition (CVPR), 2026**. [[PDF](#)]
- [3] Jingxi Chen, Brandon Y. Feng, Haoming Cai, Tianfu Wang, Levi Burner, Dehao Yuan, Cornelia Fermüller, Christopher A. Metzler, Yiannis Aloimonos, "Repurposing Pre-trained Video Diffusion Models for Event-based Video Interpolation", Published in **Conference on Computer Vision and Pattern Recognition (CVPR), 2025**. [[Project](#), [PDF](#)]
- [4] Dehao Yuan, Levi Burner, Jiayi Wu, Minghui Liu, Jingxi Chen, Yiannis Aloimonos, Cornelia Fermüller "Learning Normal Flow Directly From Events", Published in **International Conference on Computer Vision (ICCV), 2025**. [[Project](#), [PDF](#)]
- [5] Haoming Cai*, Jingxi Chen*, Brandon Y. Feng, Weiyun Jiang, Mingyang Xie, Kevin Zhang, Cornelia Fermüller, Yiannis Aloimonos, Ashok Veeraraghavan, Christopher Metzler, "Temporally Consistent Atmospheric Turbulence Mitigation with Neural Representations", Published in **The Thirty-Eighth Annual Conference on Neural Information Processing Systems (NeurIPS), 2024**. [[Project](#), [PDF](#)]
- [6] Jingxi Chen, Botao He, Chahat Deep Singh, Cornelia Fermüller, Yiannis Aloimonos, "Active Human Pose Estimation via an Autonomous UAV Agent", Published in **IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2024**. [[PDF](#), [Project](#)]
- [7] Sachin Shah, Matthew Chan, Haoming Cai, Jingxi Chen, Sakshum Kulshrestha, Chahat Deep Singh, Yiannis Aloimonos, Christopher Metzler, "CodedEvents: Optimal Point-Spread-Function Engineering for 3D-Tracking with Event Cameras", Published in **Conference on Computer Vision and Pattern Recognition (CVPR), 2024**. [[PDF](#)]
- [8] Botao He, Ze Wang, Yuan Zhou, Jingxi Chen, Chahat Deep Singh, Cornelia Fermüller, Yiannis Aloimonos, Chao Xu and Fei Gao, "Microsaccade-inspired Event Camera for Robotics", Published in **Science Robotics, 2024** [[PDF](#), [Project](#)]
- [9] Manav Mishra, Prithvi Poddar, Rajat Agrawal, Jingxi Chen, Pratap Tokekar and P. B. Sujit, "Multi-Agent Deep Reinforcement Learning for Persistent Monitoring With Sensing, Communication, and Localization Constraints", Published in **IEEE Transactions on Automation Science and Engineering, 2024**. [[PDF](#)]
- [10] Vishnu Dutt Sharma, Jingxi Chen, Pratap Tokekar, "ProxMaP: Proximal Occupancy Map Prediction for Efficient Indoor Robot Navigation", Published in **IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2023**. [[PDF](#), [Project](#)]
- [11] Jingxi Chen*, Amrish Baskaran*, Zhongshun Zhang, and Pratap Tokekar, "Multi-Agent Reinforcement Learning for Visibility-based Persistent Monitoring", Published in **IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2021**. [[PDF](#)]

Working Experience

Amazon.com Services LLC

Applied Scientist Intern

Seattle, WA

Summer 2025

- ◆ Diffusion-based Image Layer Decomposition with a unified token-to-token model, submitted to a top-tier computer vision conference.

- ◆ Internship Review Result: **Strongly Inclined (Top 1 % of all interns)**. Mentor/Reference: [Yixiao Zhang](#)

Dolby Laboratories, Inc.

PhD Research Intern

Sunnyvale, CA

Summer 2024

- ◆ With two patents submitted on Neural Event Data Compression and a novel Neural Video Codec.

Research Service & Awards

- **NeuroPAC Fellowship*** - Supported by the NSF grant “AccelNet: Accelerating Research on Neuromorphic Perception, Action, and Cognition.” 2024
- **Ph.D. Dean Fellowship*** - University of Maryland-College Park 2022 - 2023
- **John D. Gannon Endowed Scholarship ***
- **Capital One Bank Dean’s Scholarship Fund in Computer Science ***
- **Conference Reviewer** - ICRA 2021 & 2023 & 2024, IROS 2021 & 2022 & 2024, CVPR 2025, ICCV 2025
- **Journal Reviewer** - IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)