


# Jingxi Chen

Homepage: <https://codingrex.github.io/> 

Email: [ianchen@umd.edu](mailto:ianchen@umd.edu)

LinkedIn: [Link](#) 

## Education

- The University of Maryland - College Park  
*Ph.D. Student in Computer Science*
- The University of Maryland - College Park  
*B.S. & M.S. in Computer Science*

Maryland, USA  
Fall 2022 - 2027 (Expected)

Maryland, USA  
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”, **Under Review, 2025**. [ [Project](#), [PDF](#) ]
- [2] **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](#) ]
- [3] **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”, **Under Review, 2025**. [ [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\***, Amrith 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

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- **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)