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

Research Interest

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

### **Publications**

- 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", Accepted by Conference on Computer Vision and Pattern Recognition (CVPR), 2025. Project, PDF
- Haoming Cai\*, Jingxi Chen\*, Brandon Y. Feng, Weiyun Jiang, Mingyang Xie, Kevin Zhang, Cornelia Fermuller, 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]
- Jingxi Chen, Botao He, Chahat Deep Singh, Cornelia Fermuller, 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]
- 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 ]
- Botao He, Ze Wang, Yuan Zhou, Jingxi Chen, Chahat Deep Singh, Cornelia Fermuller, Yiannis Aloimonos, Chao Xu and Fei Gao, "Microsaccade-inspired Event Camera for Robotics", Published in Science Robotics, 2024 PDF, Project
- 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]
- 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]
- 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

Seattle, WA

Fall 2017 - Spring 2022

Applied Scientist Intern

Summer 2025 (Incoming)

- ♦ Working on Diffusion-based Image/Video Content Creation, Editing and Understanding.
- ♦ Internship Review Result: Strongly Inclined (Top 1 % of all interns). Mentor/Reference: Yixiao Zhang

## Dolby Laboratories, Inc.

Sunnyvale, CA

PhD Research Intern

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)