Jingxi Chen

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#### Education

The University of Maryland - College Park Ph.D. Student in Computer Science Department

Maryland, USA Fall 2022 - 2026 (Expected)

The University of Maryland - College Park

Maryland, USA Fall 2017 - Spring 2022

B.S. & M.S. in Computer Science

# Research Interest

• Computer Vision, Generative Modeling, 3D Vision, Robotics, Computational Imaging

#### **Publications**

- Jingxi Chen, Botao He, Chahat Deep Singh, Cornelia Fermuller, Yiannis Aloimonos, "Active Human Pose Estimation via an Autonomous UAV Agent", Accepted by IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2024.
- 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 ]
- 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]

### **Manuscripts**

- Jingxi Chen, Brandon Y. Feng, Haoming Cai, Mingyang Xie, Christopher Metzler, Cornelia Fermüller, Yiannis Aloimonos, "TimeRewind: Rewinding Time with Image-and-Events Video Diffusion", Under Review, 2024. PDF, Project ]
- Haoming Cai\*, Jingxi Chen\*, Brandon Y. Feng, Weiyun Jiang, Mingyang Xie, Kevin Zhang, Ashok Veeraraghavan, Christopher Metzler, "ConVRT: Consistent Video Restoration Through Turbulence with Test-time Optimization of Neural Video Representations", Under Review, 2024. [PDF, Project] Research Service & Awards
- 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
- Journal Reviewer IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)

## Working Experience

### Dolby Laboratories, Inc.

Sunnyvale, CA Summer 2024

PhD Research Intern

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

#### Brain Corp

Robotics Software Engineer

San Diego, CA Jun. 2021 - Aug. 2021

- ♦ Working in the projects for real-world robotic applications, for robots deployed in Walmart and Sam's Club.
- Working in the Shelf-Scanning team on mobile-robot information sensing tasks for real-world retail store environments
- ♦ Debugging and testing the Navigation Stack of mobile robots (Perception, SLAM, Motion Planning)