Jingxi Chen

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LinkedIn: Link

Education

- **The University of Maryland - College Park** — Maryland, USA
  Ph.D. Student *in Computer Science Department* — *Fall 2022 - 2026 (Expected)*
- **The University of Maryland - College Park** — Maryland, USA
  B.S. & M.S. *in Computer Science* — *Fall 2017 - Spring 2022*

Research Interest

- **Computer Vision, Generative Modeling, 3D Vision, Robotics, Computational Imaging**

Publications

[1] 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", **CVPR, 2024**.

[2] 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", **Science Robotic** (Accepted - Technical Hold, to be released).

[3] Vishnu Dutt Sharma, **Jingxi Chen**, Pratap Tokekar, "ProxMaP: Proximal Occupancy Map Prediction for Efficient Indoor Robot Navigation", Accepted by **IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2023**. [PDF, Project]

[4] **Jingxi Chen**, Amrish Baskaran, Zhongshun Zhang, and Pratap Tokekar, "Multi-Agent Reinforcement Learning for Visibility-based Persistent Monitoring", Accepted by **IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2021**. [PDF, Talk]

Manuscripts

[5] **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]

[6] Haoming Cai*, **Jingxi Chen***, Brandon Y. Feng, Weiyun Jiang, Weiyun Jiang, Mingyang Xie, Kevin Zhang, Ashok Veeraraghavan, Christopher Metzler, "ConVRT: Consistent Video Restoration Through Turbulence with Test-time Optimization of Neural Video Representations", **arXiv, 2024**. [PDF, Project]

[7] **Jingxi Chen**, Botao He, Chahat Deep Singh, Cornelia Fermuller, Yiannis Aloimonos, "Active Human Pose Estimation via an Autonomous UAV Agent", **Under Review, 2024**.

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 21 & 23 & 24, IROS 21
- **Journal Reviewer** - TPAMI, TVCJ

Working Experience

Dolby Laboratories, Inc. — Sunnyvale, CA
PhD Research Intern — *Summer 2024 (Incoming)*

- Defining and executing a research project with the support of a mentor over the course of 12 weeks.

Brain Corp — San Diego, CA
Robotics Software Engineer — *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)

Projects

- **Event-based Human Detection**: A Low-latency (200 fps+) and High Dynamics Range human detection demo based on event camera (DVS) Video.
- **Long-term Autonomy of Mobile Robots**: Setting up a mobile robot system based on TurtleBot 2 platform with Lidar and Cameras to autonomously navigate in the building hallway Web.

Teaching Assistant

- **CMSC426: Computer Vision.** 2022 Fall @ University of Maryland, College Park. Course Link.
- **CMSC421: Introduction to Artificial Intelligence.** 2021 Spring @ University of Maryland, College Park.
- **CMSC420: Advanced Data Structures.** Spring & Fall 2020 @ University of Maryland, College Park.