Ziyun (Claude) Wang

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EDUCATION

GRASP Lab, University of Pennsylvania *2025*
Ph.D., Computer Science
Advisor: Dr. Kostas Daniilidis
Beyond Frames: Learning to Perceive with Event-Based Vision

GRASP Lab, University of Pennsylvania *2019*
M.S.E., Robotics
Motion Equivariant Networks for Event Cameras with the Temporal Normalization Transform

Rice University *2017*
B.S., Computer Science

EXPERIENCE

Assistant Professor August 2025 – present
Electrical and Computer Engineering
Data Science and AI Institute
Johns Hopkins University

Research Intern May 2024 – August 2024
Vision Product Group (VPG), Apple

- Developed 3D computer vision algorithms for enhancing the viewing experience under large motion on the Vision Pro.

Research Intern August 2019 – June 2020
Samsung AI Center New York

- Developed novel single-view 3D reconstruction algorithms for robotics.
- Developed cost-to-go learning algorithms for efficient motion planning.

PUBLICATIONS

1. **Ziyun Wang**, Ruijun Zhang, Zi-Yan Liu, Yufu Wang, Kostas Daniilidis. "Continuous Time Human Motion Field from Events". International Conference on Computer Vision (ICCV) **(Acceptance rate: 24%)** **2025**

2. Royina Karegoudra Jayanth*, Yinshuang Xu*, **Ziyun Wang**, Evangelos Chatzipantazis, Kostas Daniilidis, Daniel Gehrig. "EqNIO: Subequivariant Neural Inertial Odometry" *International Conference on Learning Representations (ICLR)* **2025**

3. **Ziyun Wang**, Jinyuan Guo, Kostas Daniilidis. "Un-EVIMO: Unsupervised Event-based Independent Motion Segmentation." *European Conference on Computer Vision (ECCV)* **(Acceptance rate: 24.9%)** **2024**

4. Friedhelm Hamann, **Ziyun Wang**, Ioannis Asmanis, Kenneth Chaney, Guillermo Gallego, Kostas Daniilidis. "Motion-prior Contrast Maximization for Dense Continuous Time Motion Estimation" *European Conference on Computer Vision (ECCV)* **(Acceptance rate: 24.9%)** **2024**

5. Yufu Wang, **Ziyun Wang**, Lingjie Liu, Kostas Daniilidis. "TRAM: Global Trajectory and Motion of 3D Humans from in-the-wild Videos." *European Conference on Computer Vision (ECCV)* **(Acceptance rate: 24.9%)** **2024**

6. Yunzhou Song, Jiahui Lei, **Ziyun Wang**, Lingjie Liu, Kostas Daniilidis. "Track Everything Everywhere Fast and Robustly" *European Conference on Computer Vision (ECCV)* **(Acceptance rate: 24.9%)** **2024**

7. **Ziyun Wang***, Kenneth Chaney*, Kostas Daniilidis. "EvAC3D: From Event-Based Apparent Contours to 3D Models via Continuous Visual Hulls." *European Conference on Computer Vision (ECCV)* (**Oral Presentation, 2.7% of submissions**) **2022**

8. **Ziyun Wang***, Fernando Cladera*, Anthony Bisulco, Daewon Lee, Camillo J Taylor, Kostas Daniilidis, M Ani Hsieh, Daniel D. Lee, Volkan Isler. "EV-Catcher: High-Speed Object Catching Using Low-Latency Event-Based Neural Networks." *IEEE Robotics and Automation Letters (RA-L)* **2022**

9. Alex Zhu, **Ziyun Wang**, Kaung Khant, Kostas Daniilidis. "Eventgan: Leveraging large scale image datasets for event cameras." *IEEE International Conference on Computational Photography (ICCP)* **2021**

10. Jinwook Huh, Galen Xing, **Ziyun Wang**, Volkan Isler, Daniel D. Lee. "Learning to generate cost-to-go functions for efficient motion planning." *Experimental Robotics: The 17th International Symposium* **2021**

11. **Ziyun Wang**, Eric Mitchell, Volkan Isler, Daniel D. Lee. "Geodesic-HOF: 3D Reconstruction Without Cutting Corners." *AAAI Conference on Artificial Intelligence* **(Acceptance rate: 21.4%)** **2021**

12. **Ziyun Wang**, Volkan Isler, Daniel D. Lee. "Surface HOF: Surface Reconstruction

from a Single Image Using Higher Order Function Networks." *IEEE International Conference on Image Processing (ICIP)* **2020**

SELECTED REFEREED WORKSHOP PAPERS

1. **Ziyun Wang**, Friedhelm Hamann, Kenneth Chaney, Wan Jiang, Guillermo Gallego, Kostas Daniilidis. "Event-based Continuous Color Video Decompression from Single Frames." CVPR Event-based Vision Workshop. **2025**

2. Kenneth Chaney*, Fernando Cladera*, **Ziyun Wang**, Anthony Bisulco, M Ani Hsieh, Christopher Korpela, Vijay Kumar, Camillo J Taylor, Kostas Daniilidis. "M3ED: Multi-Robot, Multi-Sensor, Multi-Environment Event Dataset." *Event Vision Workshop, CVPR* **2023**

3. Alex Zhu, Wenxin Liu, **Ziyun Wang**, Vijay Kumar, Kostas Daniilidis. "Robustness Meets Deep Learning: An End-to-End Hybrid Pipeline for Unsupervised Learning of Egomotion." *Workshop on Deep Learning for Semantic Visual Navigation, CVPR* **2019**

PATENTS

1. **Ziyun Wang**, Eric Anthony Mitchell, Ibrahim Volkan Isler, and Daniel D. Lee. "Method and apparatus for three-dimensional (3D) object and surface reconstruction." U.S. Patent 11,380,061, issued July 5, 2022.

2. **Ziyun Wang**, Fernando Cladera Ojeda, Anthony Robert Bisulco, Dae Won Lee, Camillo J. Taylor, Konstantinos Daniilidis, Ani Hsieh, and Ibrahim Volkan Isler. "Systems and methods for real-time state estimation of fast-moving objects." U.S. Patent Application 17/978,873, filed May 4, 2023.

3. Jinwook Huh, Galen Kailun Xing, **Ziyun Wang**, Ibrahim Volkan Isler, and Daniel D. Lee. "Trajectory generation of a robot using a neural network." U.S. Patent 11,642,787, issued May 9, 2023.

SELECTED PRESENTATIONS

Beyond Frames: Learning to Perceive with Event-Based Vision, June 2025, Student Presentation, University of Pennsylvania, PA

Towards Bio-Inspired Efficient AI: Rethinking Perception and Action with Neuromorphic Vision, February 2025, Computer Science Seminar, Stony Brook University, NY

Towards Bio-Inspired Efficient AI: Rethinking Perception and Action with Neuromorphic Vision, March 2025, ECE Seminar, Johns Hopkins University, MD

Continuous-time Human Motion Fields from Event Cameras, February 2025, NYC Computer Vision Day, New York City

Continuous Color Video Decompression from Single Frames, February 2025, Research Talk, Apple, CA

High-Speed Object Catching Using Low-Latency Event-based Neural Networks, Nov 2021, Center for Brain-Inspired Computing (C-BRIC), Purdue University, IN

High-Speed Object Catching Using Low-Latency Event-based Neural Networks, Aug 2021, Neuromorphic Seminar Invited Talk, University of Pennsylvania, PA

Self-supervised Geometric Learning for Flow, Depth and Odometry, June 2019, Research Talk, Samsung AI Center, NY

TEACHING AND SERVICE

Outstanding Reviewers
CVPR 2025, ECCV 2024

Reviewing 2021–present
CVPR, ECCV, ICCV, TPAMI, IROS, ICRA, RA-L, TRO, NeurIPS

Teaching Assistant 2021
Machine Perception (CIS 580)
Dr. Kostas Daniilidis, University of Pennsylvania

Teaching Assistant 2019, 2020
Advanced Robotics (MEAM 620)
Dr. Camillo J. Taylor and Dr. Ani Hsieh, University of Pennsylvania