Runfa Blark Li

Contact

Ph.D. Candidate, Electrical and Computer Engineering, University of California, San Diego
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Education

Ph.D., Electrical and Computer Engineering, 2022–2027 (expected)
University of California, San Diego. CA
Advisors: Prof. Nikolay Atanasov, Prof. Truong Nguyen

M.S., Electrical and Computer Engineering, 2019-2021
University of California, San Diego. CA
Advisors: Prof. Truong Nguyen

B.S., Material Science and Engineering, 2015-2019
Jiangsu University, Jiangsu Province, China.

Research Experience

Graduate Student Researcher, *Existential Robotics Lab*, UC San Diego	2023–Present
Graduate Student Researcher, *Video Processing Lab*, UC San Diego	2020–Present
Research Scientist Intern, Qualcomm XR Advanced Technology Group	2024 Summer
Deep Learning Research Intern, Qualcomm XR/VR Computer Vision Team	2021, 2022 Summer
Graduate Student Researcher, Mobile Systems Design Laboratory, UC San Diego	2020–2021

Research Interests

- Embodiment AI, Robotics, Reinforcement learning, VLA, world model, bimanual dexterous manipulation, humanoid, Learning-based Exoskeleton
- 3D/4D computer vision, dynamic SLAM, Gaussian splatting and NeRF, scene/object/human reconstruction & understanding, scene flow

Selected First-Authored Publications

- **R. Li***, et al. "DexFuture: Hierarchical Future-State Visuomotor Targeting for Bimanual Dexterous Tool Use," under review, 2026.
- **R. Li***, et al. "PhysGraph: Physically-Grounded Graph-Transformer Policies for Bimanual Dexterous Hand-Tool-Object Manipulation," under review, 2026.
- **R. Li***, et al. "SplatSDF: Boosting SDF-NeRF via Architecture-Level Fusion with Gaussian Splats," ICRA 2026.
- **R. Li***, et al. "DynaGSLAM: Real-Time Gaussian-Splatting SLAM for Online Rendering, Tracking, Motion Predictions of Moving Objects in Dynamic Scenes," WACV 2026.
- **R. Li***, et al. "MonoSelfRecon: Purely Self-Supervised Explicit Generalizable 3D Reconstruction of Indoor Scenes from Monocular RGB Views," CVPR Workshops 2024.
- **R. Li***, et al. "MonoPLFlowNet: Permutohedral Lattice FlowNet for Real-Scale 3D Scene Flow Estimation with Monocular Images," ECCV 2022.
- **R. Li***, et al. "SM3D: Simultaneous Monocular Mapping and 3D Detection," ICIP 2021.

Professional Service

Reviewer: NeurIPS, CVPR, ECCV, ICCV, WACV, 3DV, BMCV, ICRA, IROS, CoRL, ICASSP, ICIP

Technical Skills
C/C++, CUDA programming, Python, Isaac Gym/Lab, Mujoco, MATLAB, NoSQL (Apache Cassandra), Docker, Assembly Language