

Shivansh Patel

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Education

University of Illinois at Urbana Champaign

PH.D. IN COMPUTER SCIENCE, ADVISOR: SVETLANA LAZEBNIK (3.88/4.0)

Aug. 2021 - Present

Indian Institute of Technology Kanpur

BACHELOR OF TECHNOLOGY IN ELECTRICAL ENGINEERING (9.0/10.0)

Aug. 2016 - July. 2020

Research Interests

ROBOTICS, REINFORCEMENT LEARNING, AND COMPUTER VISION

Publications

1. Robotic Manipulation by Imitating Generated Videos with Zero Training Demos

[PDF](#) | [Project](#) | [Code](#)

SHIVANSH PATEL, SHRADDHA MOHAN, ASHER MAI, UNNAT JAIN, SVETLANA LAZEBNIK, YUNZHU LI

Under Review

2. A Real-to-Sim-to-Real Approach to Robotic Manipulation with VLM-Generated Iterative Keypoint Rewards

[PDF](#) | [Project](#) | [Code](#)

SHIVANSH PATEL*, XINCHEN YIN*, WENLONG HUANG, SHUBHAM GARG, HOOSHANG NAYYERI, LI

FEI-FEI, SVETLANA LAZEBNIK, YUNZHU LI

ICRA, 2025

3. Token Efficient Deep Conversational Reasoning With ConvoDAGs

SUMUK SHASHIDHAR, ABHINAV CHINTA, VAIBHAV SAHAI, FARAZ MAHMOOD SIDDIQI, SHIVANSH PATEL

Under Review, 2024

4. Language-Aligned Waypoint (LAW) Supervision for Vision-and-Language Navigation in Continuous Environments

[PDF](#) | [Project](#) | [Code](#)

SONIA RAYCHAUDHURI, SAIM WANI, SHIVANSH PATEL, UNNAT JAIN, ANGEL X. CHANG

Empirical Methods in Natural Language Processing (EMNLP), 2021

5. Interpretation of Emergent Communication in Heterogeneous Collaborative Embodied Agents

[PDF](#) | [Project](#) | [Code](#)

SHIVANSH PATEL*, SAIM WANI*, UNNAT JAIN*, ALEXANDER SCHWING, SVETLANA LAZEBNIK, MANOLIS SAVVA, ANGEL X. CHANG

International Conference on Computer Vision (ICCV), 2021

6. MultiON: Benchmarking Semantic Map Memory using Multi-Object Navigation

[PDF](#) | [Project](#) | [Code](#)

SAIM WANI*, SHIVANSH PATEL*, UNNAT JAIN*, ANGEL X. CHANG, MANOLIS SAVVA

Neural Information Processing Systems (NeurIPS), 2020

7. Robust Explanations for Visual Question Answering

[PDF](#) | [Code](#)

BADRI N. PATRO, SHIVANSH PATEL, VINAY P. NAMBOODIRI

Winter Conference on Applications of Computer Vision (WACV), 2020

8. U-CAM: Visual Explanation using Uncertainty based Class Activation Maps

[PDF](#) | [Project](#) | [Code](#)

BADRI N. PATRO, MAYANK LUNAYACH, SHIVANSH PATEL, VINAY P. NAMBOODIRI

International Conference on Computer Vision (ICCV), 2019

9. Granular Multimodal Attention Networks for Visual Dialog

[PDF](#)

BADRI N. PATRO, SHIVANSH PATEL, VINAY P. NAMBOODIRI

ICCV workshop on Intelligent Short Video (ISV), 2019

Internships

SceniX

New York, USA

Summer 2025

RESEARCH INTERN, SUPERVISOR: YUNZHU LI AND CHANGXI ZHENG

- Achieved SOTA results for simulating a wide range of deformable objects by merging classical physics simulation with learning

Simon Fraser University (SFU)

Burnaby, Canada

Jan 2020 - July 2020

VISITING SCHOLAR, SUPERVISOR: MANOLIS SAVVA AND ANGEL X. CHANG

- See publication #2, #3, and #4

Academic Services

Challenge Leads

- Multi-Object Navigation (MultiON) Challenge, Embodied AI Workshop, CVPR 2021

Workshop Program Committee

- eXplainable AI approaches for debugging and diagnosis, NeurIPS 2021
- Embodied AI Workshop, CVPR 2021

Reviewer

- ICCV 2023, CVPR 2022, ECCV 2022, ICCV 2023, TPAMI, IROS 2025, RA-L, IJCV

References

Svetlana Lazebnik

PH.D. ADVISOR

Professor, UIUC

Yunzhu Li

MENTOR

Assistant Professor, UIUC

Manolis Savva

INTERN MENTOR

Assistant Professor, SFU

Angel X. Chang

INTERN MENTOR

Assistant Professor, SFU

Unnat Jain

MENTOR

Meta Researcher and CMU Postdoc

Vinay Namboodiri

UG ADVISOR

Faculty member, University of Bath

Teaching

Graduate Teaching Assistant

UIUC

DEEP LEARNING FOR COMPUTER VISION CS444, COMPUTER VISION CS543