

Shivansh Patel

✉ shivanshpatel35@gmail.com 🌐 shivanshpatel35.github.io 📄 shivanshpatel35

Education

University of Illinois at Urbana Champaign

Aug. 2021 - Present

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

Indian Institute of Technology Kanpur

Aug. 2016 - July. 2020

BACHELOR OF TECHNOLOGY IN ELECTRICAL ENGINEERING (9.0/10.0)

Research Interests

ROBOTICS, REINFORCEMENT LEARNING, AND COMPUTER VISION

Publications

1. Token Efficient Deep Conversational Reasoning With ConvoDAGs

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

Under Review, 2024

2. 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

3. 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

4. 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

5. 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

6. 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

7. 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

Simon Fraser University (SFU)

Burnaby, Canada

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

Jan 2020 - July 2020

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

Projects

Using Foundation Models to Extract Priors for Robotic Policy Learning

SHIVANSH PATEL, WENLONG HUANG, SVETLANA LAZEBNIK, YUNZHU LI

Ongoing

- Used SOTA vision and language models to extract affordances
- Used extracted affordances to learn policies efficiently

Honors & Awards

- 2020 Named finalist for Qualcomm Innovation Fellowship India 2020
- 2019 Recipient of Academic Excellence Award for exceptional academic performance
- 2016-20 Recipient of IIT Kanpur MCM scholarship for Meritorious Performance

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

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

DEEP LEARNING FOR COMPUTER VISION CS444, COMPUTER VISION CS543

UIUC

Social Services

Relations Wing, Outreach Cell

COORDINATOR

IIT Kanpur

June 2018 - May 2019

- Organized renowned programs such as Tips from the Tops and Alumni Hangouts
- Initiated Buddy Program that aims to connect sophomore students with alumni
- Assisted the Institute to develop better relations with alumni
- Directed an online campaign of #ThatsIITK to guide prospective students