KUNAL PRATAP SINGH

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EDUCATION

Indian Institute of Technology, Roorkee

2016-2020

Bachelor of Technology, Department of Electrical Engineering

RESEARCH EXPERIENCE

Allen Institute for Artificial Intelligence

PRIOR

Predoctoral Young Investigator

May 2021 - Present

Advisors. Prof. Aniruddha Kembhavi, Prof. Roozbeh Mottaghi

Computer Vision Lab

GIST, South Korea

Research Assistant

May 2020 - April 2021

Advisors: Prof. Jonghyun Choi, Prof. Roozbeh Mottaghi

Computer Vision Lab

GIST. South Korea

Research Intern
Advisor: Prof. Jonghyun Choi

May 2019 - November 2019

Video Analytics Lab, Department of CDS

Indian Institute of Science, India

Research Intern

November 2018 - January 2019

Advisor: Prof. R. Venkatesh Babu

PUBLICATIONS

A General Purpose Supervisory Signal for Embodied Agents. [paper]

Kunal Pratap Singh, Jordi Salvador, Luca Weihs, Aniruddha Kembhavi

Under submission at CVPR, 2023.

Ask4Help: Learning to Leverage an Expert for Embodied Tasks. [paper][code]

Kunal Pratap Singh, Luca Weihs, Alvaro Herrasti, Jonghyun Choi, Aniruddha Kembhavi, Roozbeh Mottaghi Advances in Neural Information Processing Systems (NeurIPS), 2022.

Factorizing Policy and Perception for Interactive Instruction Following. [paper][code]

Kunal Pratap Singh*, Suvaansh Bhambri*, Byeonghwi Kim*, Roozbeh Mottaghi, Jonghyun Choi Internation Conference on Computer Vision (ICCV), 2021.

Learning Architectures for Binary Networks. [paper][code]

Kunal Pratap Singh*, Dahyun Kim*, Jonghyun Choi

European Conference on Computer Vision (ECCV), 2020.

A Fast, Scalable and Reliable Deghosting Method for Extreme Exposure Fusion. [paper][code]

K. Ram Prabhakar*, Rajat Arora*, Adhitya Swaminathan, Kunal Pratap Singh, and R. Venkatesh Babu International Conference on Computational Photography (ICCP), 2019.

TALKS

- Embodied Vision, Actions and Language Workshop (EVAL), ECCV 2020.
- Invited talk on How to get started in Research. Organized by Student Mentorship Program, IIT Roorkee.

AWARDS

- Bronze Prize, Samsung Humantech Awards, 2020 (for ECCV work on binary neural networks).
- Awarded the National Talent Search Examination (NTSE) Scholarship for high school and undergraduate studies.
- Awarded the Kishore Vaigyanik Protsahan Yojana (KVPY) Fellowship, which included a fully-funded opportunity to pursue a basic sciences degree from the Indian Institute of Science (IISc), India.

TECHNICAL SKILLS

· Languages and Toolkits: Python, Pytorch, Tensorflow, C++, Docker, Git

REFERENCES

Roozbeh Mottaghi

Research Scientist Manager FAIR, Meta AI

Affiliate Associate Professor

Paul G. Allen School of Computer Science & Engineering

University of Washington

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Jonghyun Choi

Associate Professor Vision and Learning Lab Yonsei University, Seoul, South Korea

Contact: jc@yonsei.ac.kr

Aniruddha Kembhavi

Director of Computer Vision Allen Institute for AI (AI2) Affiliate Associate Professor

Paul G. Allen School of Computer Science & Engineering

University of Washington Contact: anik@allenai.org