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** and **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   *May 2019 - November 2019*
Advisor: **Prof. Jonghyun Choi**

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.
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. [slides]

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