Kshitij Dwivedi

Applied Scientist **Amazon Robotics** Berlin, Germany

Education

2020-2022 PHD IN CSE Goethe University Frankfurt, Germany

2009-2014 MASTERS IN EE IIT Kanpur, India

2009-2014 **BACHELORS IN EE** IIT Kanpur, India

Skills

LANGUAGES Python, C/C++ **FRAMEWORK** Pytorch, Tensorflow, Matlab

Teaching

Computer Vision, GU Frankfurt Neuromatch Academy **EEG MVPA Course** Data Structures, IIT Kanpur

Supervision

MASTER'S THESIS Andrei Kitaitsev Vanshika Bawa **Daniel Pietschmann** Yannic Vorpahl

BACHELOR'S THESIS Domenic Bersch Quang Anh Le Hong Martin Pflaum Raphael Leuner Marta Paula Balode

Links

Google Scholar: // kshitijd20 Semantic Scholar: // kshitijd20 Github://kshitijd20 Linkedin:// kshitijd20

Research Experience

SEP'22-Now Amazon Robotics, Berlin, Germany **Applied Scientist**

Perception for warehouse robots

JULY-SEP '21 Allen Institute for AI, USA Research Intern (Remote) Interpreting representations learned by embodied agents trained to perform navigation tasks in virtual environments (CVPR 22)

2020-2022 Goethe University, Frankfurt, Germany

2018-2019 SUTD, Singapore **PhD Student** Applying computer vision to understand human visual system

(JoCN 20, PLOS Comp Bio 21), Transfer learning (CVPR 19, ECCV 20)

2017-2017 ATR, Kyoto, Japan **Research Engineer** Reconstruction of perceived images from brain activity using deep learning and GAN (Frontiers in Computational Neuroscience, 19)

2014-2017 Samsung Research Institute, India **Senior Software Engineer** Computer Vision applications for Samsung smartphone cameras (Patent on segmentation, Tracking paper, Saliency paper)

Publications (see all at \Im)

• What do navigation agents learn about their environment? K. Dwivedi, G. Roig, A. Kembhavi, R. Mottaghi

CVPR 22

Mob.: +49-15904830652

Email.:kshitijdwivedi93@gmail.com

Web.:https://kshitijd20.github.io

- The spatiotemporal neural dynamics of object location representations in the human brain **Nature Human Behavior 22** M. Graumann, C. Ciuffi, K. Dwivedi, G. Roig, R.M.Cichy,
- Unveiling functions of the visual cortex using task-specific deep neural networks. **PLOS Computational Biology 21** K. Dwivedi, M.F. Bonner, R.M.Cichy*, G. Roig*
- Unravelling Representations in Scene-selective Brain Regions Using Scene **Journal of Cognitive Neuroscience 21** Parsing Deep Neural Networks. K. Dwivedi, R.M.Cichy*, G. Roig*
- Duality Diagram Similarity: a generic framework for initialization selection in task transfer learning. **ECCV 20**

K. Dwivedi, J. Huang, R.M.Cichy, G. Roig

• Representation Similarity Analysis for Efficient Task taxonomy and Transfer Learning. **CVPR 19**

K. Dwivedi, G. Roig

• End-to-End Deep Image Reconstruction From Human Brain Activity.

Frontiers in Computational Neuroscience 19

G. Shen*, K. Dwivedi*, K. Majima, T. Horikawa, Y. Kamitani

Achievements

- Selected for CVPR 22 Doctoral Consortium Travel Award
- Lead Teaching Assistant in Neuromatch Academy, 2020
- Attended Brain, Minds and Machines (BMM) summer school 2019
- First place in LSUN Saliency Challenge, CVPR 2016.