## Pulkit Kumar

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Education University of Maryland, College Park Aug 2021 -

Ph. D. in Computer Science

Advisor: Abhinav Shrivastava

University of Maryland, College Park Aug 2019 - May 2021

M.S. in Computer Science Advisor: Abhinav Shrivastava

Netaji Subhas Institute of Technology, University of Delhi Aug 2013 - May 2017

B.E. in Information Technology

Employment Paralleldots, Inc.

Senior Data Scientist
Nov 2018 - May 2019
Data Scientist
Jun 2017 - Oct 2018
Data Science Intern
Jun 2015 - Jun 2017

Developing machine learning and deep learning models in multiple domains like computer

vision, NLP and speech recognition and applying them in sectors of market research and healthcare.

Indrprastha Institute of Information Technology May 2017 - May 2019

Research Associate

Exploring computational models to segment brain MRI and detecting bone marrow cancer

(Myeloma) from microscopic images of white blood cells.

Teaching CMSC 828I: Advanced Techniques in Visual Learning and Recognition Fall 2020

Experience Teaching Assistant with Abhinav Shrivastava

CMSC 498L: Introduction to Deep Learning Spring 2020

Teaching Assistant with Abhinav Shrivastava

CMSC 250: Discrete Structures Fall 2019

Teaching Assistant with Jason Filippou

Skills **Programming Languages:** Python, C, C++

Frameworks and Tools: PyTorch, Numpy, Scikit-learn, Pandas, Open-CV, Lasagne, Theano

Journal Papers

Deep Multimodal Learning for the Diagnosis of Autism Spectrum Disorder

(Link in title) M Tang, P. Kumar, H. Chen, A. Shrivastava

Journal of Imaging, 2020

Conference Papers

U-Segnet: Fully convolutional neural network based automated brain tissue segmentation tool

(Link in title) P. Kumar, P. Nagar, C. Arora, A. Gupta

International Conference on Image Processing (ICIP), 2018

Boosted cascaded convnets for multi-label classification of thoracic diseases

P. Kumar\*, M. Grewal\*, M.M. Srivastava

International Conference Image Analysis and Recognition (ICIAR), 2018

RADnet: Radiologist level accuracy using deep learning for haemorrhage detection in CT scans

M. Grewal, M.M. Srivastava, *P. Kumar\**, S. Varadarajan\* *International Symposium of Biomedical Imaging (ISBI)*, 2018

Ongoing Projects Sub-action discovery in untrimmed videos using motif mining

Mining common sub-actions across actions and discovering them in untrimmed videos.

 $\label{lem:condition} \textbf{Benchmarks for evaluating open-world performance of recognition models}$ 

Analysing the generalisation of models to different kind of novelties in the wild.

Predicting the effect of climate change on vegetation

Studying the impact of climate change on agriculture land using temporal satellite images

Workshop **Dealing with Novelty in the Open World** 

Organization Winter Conference on Applications of Computer Vision (WACV), 2022

Reviewing CVPR (2020-2022), ICCV (2021), AAAI (2021)