Pravin Nagar

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RESEARCH INTERESTS	**Computer Vision, Deep Learning, Video Analysis, and Egocentric lifelogs Analysis.**

EDUCATION

IIIT-Delhi, India
PhD candidate, Computer Science and Engineering, CGPA: 8.14   2016–Present
Visvesvaraya Ph.D. Fellow (2016-2020)
Thesis: Analysing (Weeks) Long Egocentric Lifelogs
Advisor: Dr. Chetan Arora

IIIT-Allahabad, India
M.Tech., Information Technology, CGPA: 8.65   2012–2014
Thesis: Human Action Recognition
Advisor: Dr. Anupam Agarwal

Mahakal Institute of Information Technology and Science, Ujjain, India
B.Tech., Computer Science and Engineering, Percentage: 70   2007–2011
Project: Hotel Management website
Advisor: Pradeep Rupalia

PUBLICATIONS

Pravin Nagar, Tanmoy Chakraborty, and Chetan Arora. "Self-supervised Recovery of Activity Patterns from Weeks-long Egocentric Photostreams" in preparation.

Pravin Nagar, Anuj Rathore, C. V. Jawahar, and Chetan Arora. "Generating Personalized Summaries of Day Long Egocentric Videos" *IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI), 2021.* (Impact Factor: 16.39)

Pravin Nagar, Mansi Khemka, and Chetan Arora. "Concept Drift Detection for Multivariate Data Streams and Temporal Segmentation of Daylong Egocentric Videos" *Proceedings of the 28th ACM International Conference on Multimedia (ACMMM), 2020.*

Anuj Rathore*, **Pravin Nagar***, Chetan Arora, and C.V. Jawahar. "Generating 1 Minute Summaries of Day Long Egocentric Videos" *Proceedings of the 27th ACM International Conference on Multimedia (ACMMM), 2019.* (* both authors contributed equally)

Sagar Verma, **Pravin Nagar**, and Chetan Arora. "Making third person techniques recognize first-person actions in egocentric videos" *25th IEEE International Conference on Image Processing (ICIP), 2018.*

Pulkit Kumar, **Pravin Nagar**, Anubha Gupta and Chetan Arora. "U-Segnet: fully convolutional neural network based automated brain tissue segmentation tool" *25th IEEE International Conference on Image Processing (ICIP), 2018.*

Pravin Nagar, Anupam Agrawal. "Geometric invariant model based human action recognition" *9th International Conference on Industrial and Information Systems (ICIIS), 2014.*

WORK EXPERIENCE	**IIT Delhi, India** *Junior Research Fellow* Research Project: Learning from Egocentric Videos PI: Dr. Chetan Arora	Feb, 2021–Jan, 2022
	PSIT Kanpur, India *Assistant Professor* Taught Artificial Intelligence, Software Project Management and E-Commerce.	Jul, 2014–Dec, 2015

TEACHING ASSISTANT	CSE507-Database System Implementation	Winter 2016
	CSE201-Advance Programming	Monsoon 2016
	CSE561-Probabilistic Graphical Models	Winter 2017
	CSE543-Machine Learning	Monsoon 2017
	CSE561-Probabilistic Graphical Models	Winter 2019
	CSE642-Advanced Machine Learning	Monsoon 2019
	CSE641-Deep Learning	Winter 2020
	CSE562-Advanced Computer Vision	Monsoon 2020

POSITIONS OF RESPONSIBILITY	Reviewer of Pattern Recognition Journal and IETE Journal of Research	January, 2022
	Participated and Member of organizing committee for 'Intelligent Interactive Technologies and Multimedia (IITM)'	Mar, 2013
	System Administrator, CVML lab, IIIT-Delhi	Aug, 2018 - Present

RESEARCH PROJECTS	**Real-Time Face Recognition Using Deep Learning** *Adviser: Dr. Chetan Arora*	Jul, 2017 - Dec, 2017

In this project, we use a pre-trained deep network for face detection, and then a small multi-resolution network (inspired by the inception network) is proposed for real-time face recognition. For training, we have collected the data of seven-person. Our model robustly detects and recognizes faces in real-time for each frame of video.

	Smart Messenger *Advisor: Dr. Saket Anand*	Aug, 2016 - Jan, 2017

We propose a smart messenger to classify emotions based on short text messages. We use color coding for the messages to depict the emotion being conveyed in the message. Microsoft research demonstrates state-of-the-art performance (64.47% accuracy) on the ISEAR dataset for five emotions classes. The proposed deep learning model demonstrates significant improvement (82% accuracy) with respect to the state-of-the-art.

SKILLS	**Programming Languages**
	  Python, Java, C, C++.
	Tools and Technologies
	  PyTorch, Tensorflow, Matlab, Caffe, OpenCV, Pandas, SciPy.

REFERENCES	Dr. Chetan Arora Associate Professor, IIT Delhi, India Computer Vision chetan@iitd.ac.in, +91-11-26591279	Dr. C. V. Jawahar Professor, IIIT Hyderabad, India Computer Vision jawahar@iiit.ac.in, +91-40-66531148