

# Rohan Chandra

THIRD YEAR PH.D. STUDENT IN COMPUTER SCIENCE

✉ rohan@cs.umd.edu | 🏠 <http://rohanchandra30.github.io/> | 📧 rohanchandra30 | 🌐 rohanchandra30 | 🎓 google scholar

## Education

### University of Maryland

PH.D. IN COMPUTER SCIENCE (ADVISOR: DINESH MANOCHA)

M.S. IN COMPUTER SCIENCE (ADVISOR: TOM GOLDSTEIN)

College Park, MD

2018 - Present

2016 - 2018

### Delhi Technological University

B.TECH. IN ELECTRONICS ENGINEERING

New Delhi, India

2012 - 2016

## Skills

**Programming Tools** Python (Comfortable), Matlab (Comfortable), LaTeX (Expert), Unix Shell Scripting (Comfortable)

**Deep Learning** PyTorch (Comfortable), Tensorflow (Novice)

**Video Editing/Design** Adobe Premiere Pro (Comfortable)

**Web Design** HTML5 (Novice), Hugo (Novice), Jekyll (Novice), CSS (Novice)

## Honors & Awards

2020 **Future Faculty Fellow,**

2020 **Summer Research Fellowship,**

2018 **Quora Top Writer**, 861, 000 views with 314 shares

Clark School, UMD

Grad. School, UMD

## Professional Service

2018-now **Reviewer**, CVIU'18-'20, IJCAI'19, CoRL'19, CVPR'20-'21, AAAI'20-'21, ICRA'20-'21, IROS'19-'20, RAL'20-'21, NeurIPS'20, ICLR'21, ICML'21

2017-2019 **Committee Member**, UMD CS Graduate School Admissions

## Internships

### NVIDIA

DEEP LEARNING RESEARCH INTERN, AUTONOMOUS DRIVING

Remote (COVID-19)

Summer 2021

## Publications ( See Google Scholar for full list )

### SAfE: Self-Attention Based Unsupervised Road Safety Classification in Hazardous Environments

DIVYA KOTHANDARAMAN, ROHAN CHANDRA, DINESH MANOCHA

Under Review

( CVPR 2021 )

### StylePredict: Machine Theory of Mind for Human Driver Behavior From Trajectories

ROHAN CHANDRA, ANIKET BERA, DINESH MANOCHA

arXiv Preprint

( 2020 )

### B-GAP: Behavior-Guided Action Prediction for Autonomous Navigation

ANGELOS MAVROGIANNIS, ROHAN CHANDRA, DINESH MANOCHA

Under Review

( ICRA 2021 )

### BoMuDA: Boundless Multi-Source Domain Adaptive Segmentation in Unconstrained Environments

DIVYA KOTHANDARAMAN, ROHAN CHANDRA, DINESH MANOCHA

Under Review

( AAAI 2021 )

### CMetric: A Driving Behavior Measure Using Centrality Functions

ROHAN CHANDRA, UTTARAN BHATTACHARYA, TRISHA MITTAL, ANIKET BERA, DINESH MANOCHA

IROS 2020

## Forecasting Trajectory and Behavior of Road-Agents Using Spectral Clustering in Graph-LSTMs

ROHAN CHANDRA, TIANRUI GUAN, SRUJAN PANUGANTI, TRISHA MITTAL, UTTARAN BHATTACHARYA, ANIKET BERA, DINESH MANOCHA

RAL/IROS 2020

## GraphRQI: Classifying Driver Behaviors Using Graph Spectrums

ROHAN CHANDRA, UTTARAN BHATTACHARYA, TRISHA MITTAL, XIAOYU LI, ANIKET BERA, DINESH MANOCHA

ICRA 2020

## RoadTrack: Tracking Road Agents in Dense and Heterogeneous Environments

ROHAN CHANDRA, UTTARAN BHATTACHARYA, TANMAY RANDHAVANE, ANIKET BERA, AND DINESH MANOCHA

ICRA 2020

## EmotiCon: Context-Aware Multimodal Emotion Recognition Using Frege's Principle

TRISHA MITTAL, POOJA GUHAN, UTTARAN BHATTACHARYA, ROHAN CHANDRA, ANIKET BERA, DINESH MANOCHA

CVPR 2020

## Densecavoid: Real-time navigation in dense crowds using anticipatory behaviors

AJ SATHYAMOORTHY, JING LIANG, UTSAV PATEL, TIANRUI GUAN, ROHAN CHANDRA, DINESH MANOCHA

RAL/ICRA 2020

## Emotions Don't Lie: A Deepfake Detection Method using Audio-Visual Affective Cues

TRISHA MITTAL, UTTARAN BHATTACHARYA, ROHAN CHANDRA, ANIKET BERA, DINESH MANOCHA

ACM Multimedia 2020

## M3ER: Multiplicative Multimodal Emotion Recognition Using Facial, Textual, and Speech Cues

TRISHA MITTAL, UTTARAN BHATTACHARYA, ROHAN CHANDRA, ANIKET BERA, DINESH MANOCHA

AAAI 2020 (Oral)

## STEP: Spatial Temporal Graph Convolutional Networks for Emotion Perception from Gaits

UTTARAN BHATTACHARYA, TRISHA MITTAL, ROHAN CHANDRA, TANMAY RANDHAVANE, ANIKET BERA, DINESH MANOCHA

AAAI 2020 (Spotlight)

## Take an Emotion Walk: Perceiving Emotions from Gaits Using Hierarchical Attention Pooling and Affective Mapping

UTTARAN BHATTACHARYA, CHRISTIAN RONCAL, TRISHA MITTAL, ROHAN CHANDRA, ANIKET BERA, DINESH MANOCHA

ECCV 2020

## RobustTP: End-to-End Trajectory Prediction for Heterogeneous Road-Agents in Dense Traffic with Noisy Sensor Inputs

ROHAN CHANDRA, UTTARAN BHATTACHARYA, CHRISTIAN RONCAL, ANIKET BERA, DINESH MANOCHA

CSCS 2019 (Oral)

## DensePeds: Pedestrian Tracking in Dense Crowds Using Front-RVO and Sparse Features

ROHAN CHANDRA, UTTARAN BHATTACHARYA, ANIKET BERA, AND DINESH MANOCHA

IROS 2019

## TraPHic: Predicting Trajectories of Road-Agents in Dense and Heterogeneous Traffic

ROHAN CHANDRA, UTTARAN BHATTACHARYA, ANIKET BERA, AND DINESH MANOCHA

CVPR 2019

## Patents

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### System and method for Detecting Fabricated Videos

TRISHA MITTAL, UTTARAN BHATTACHARYA, ROHAN CHANDRA, ANIKET BERA, DINESH MANOCHA

Application No. 63/107803

October 2020

### System and Method for Multimodal Emotion Recognition

TRISHA MITTAL, UTTARAN BHATTACHARYA, ROHAN CHANDRA, ANIKET BERA, DINESH MANOCHA

Application No. 62/972456

February 2020

## Teaching Experience

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- 2018 **Teaching Assistant**, CMSC 250: Discrete Structures
- 2017 **Teaching Assistant**, CMSC 131 (Introduction to OOP in Java)
- 2016 **Teaching Assistant**, CMSC 417 (Computer Networks)

## Diversity and Inclusion

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### NYU AI School

Remote (COVID-19)

TEACHING ASSISTANT

January 2021

- Teaching basic machine learning and programming and discussing a career in machine learning research with students from underrepresented minorities.

### AI4All

Remote (COVID-19)

SPEAKER

July 2020

- Gave a talk on Self-Driving cars and autonomous driving to high school students from underrepresented minorities.

## Other Achievements

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### “Multiply by 9”

MAA

2016

- Invented a simple math formula, published as a short article in The College Mathematics Journal by the Mathematics Association of America