# Rohan Chandra

Third year Ph.D. Student in Computer Science

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## Education

**University of Maryland** — *College Park, MD*

Ph.D. in Computer Science (Advisor: Dinesh Manocha) — *2018 - Present*

M.S. in Computer Science (Advisor: Tom Goldstein) — *2016 - 2018*

**Delhi Technological University** — *New Delhi, India*

B.Tech. in Electronics Engineering — *2012 - 2016*

## Skills

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|---|---|
| **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**, *Clark School, UMD*

2020 **Summer Research Fellowship**, *Grad. School, UMD*

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

## 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** — *Remote (COVID-19)*

Deep Learning Research Intern, Autonomous Driving — *Summer 2021*

## Publications ( See Google Scholar for full list)

**SAfE: Self-Attention Based Unsupervised Road Safety Classification in Hazardous Environments** — *Under Review*

**Divya Kothandaraman**, Rohan Chandra, Dinesh Manocha — *( CVPR 2021 )*

**StylePredict: Machine Theory of Mind for Human Driver Behavior From Trajectories** — *arXiv Preprint*

**Rohan Chandra**, Aniket Bera, Dinesh Manocha — *( 2020 )*

**B-GAP: Behavior-Guided Action Prediction for Autonomous Navigation** — *Under Review*

**Angelos Mavrogiannis**, Rohan Chandra, Dinesh Manocha — *( ICRA 2021 )*

**BoMuDA: Boundless Multi-Source Domain Adaptive Segmentation in Unconstrained Environments** — *Under Review*

**Divya Kothandaraman**, Rohan Chandra, Dinesh Manocha — *( 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

**System and method for Detecting Fabricated Videos** — *Application No. 63/107803*

Trisha Mittal, Uttaran Bhattacharya, **Rohan Chandra**, Aniket Bera, Dinesh Manocha — *October 2020*

**System and Method for Multimodal Emotion Recognition** — *Application No. 62/972456*

Trisha Mittal, Uttaran Bhattacharya, **Rohan Chandra**, Aniket Bera, Dinesh Manocha — *February 2020*

## Teaching Experience

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

**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

**"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