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 — *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*

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

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*

Talks

2020 **Maryland Robotics Center,** Modeling Human Driver Behavior in Dense Urban Traffic Using Graph Theory

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)

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)

Professional Service

2021 **Program Committee**, ICCV'21 Workshop on Multi-Agent Interaction and Relational Reasoning *Reviewer*

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, ICCV'21

2017-2019 **Graduate Admissions Committee**, UMD CS Department

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