## Shruti Agarwal


**Contact Information**

Dartmouth College
6211 Sudikoff Laboratory
Hanover, NH 03755

+1(401)651-7667
shruti.agarwal.gr@dartmouth.edu
http://www.cs.dartmouth.edu/~shruti/


**Research Interests**

Multimedia Forensics, Image Analysis, Machine Learning and Computer Vision.

**Education**

**Dartmouth College**, Hanover, New Hampshire USA **2015 - present**

Ph.D., Computer Science (expected graduation: 2020)

- Advisor: Prof. Hany Farid

**Indian Institute of Technology Delhi (IIT Delhi)**, Delhi, India **2010 - 2012**

M. Tech., Computer Science; CGPA: 9.5/10.0

- Thesis: A New Consistency Measure using Shape from Shading (SFS) for Dense 3D Reconstruction Paradigm.
- Advisor: Prof. Subhashis Banerjee and Prof. Prem Kalra

**Harcourt Butler Technological Institute**, Kanpur, India **2006 - 2010**

B.Tech., Computer Science; Percentage: 79.92%

**Publications**

W. Fan, **S. Agarwal**, and H. Farid. Rebroadcast Attacks: Defenses, Reattacks, and Redefenses, European Signal Processing Conference (EUSIPCO), Rome, Italy, 2018. (pdf)

**S. Agarwal**, W. Fan, and H. Farid. A Diverse Large-Scale Dataset for Evaluating Rebroadcast Attacks. IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), Calgary, Alberta, Canada, 2018. (pdf)

**S. Agarwal** and H. Farid. A JPEG Corner Artifact from Directed Rounding of DCT Coefficients. TR2018-838, Department of Computer Science, Dartmouth College, 2018. (pdf)

**S. Agarwal** and H. Farid. Photo forensics from JPEG dimples. 2017 IEEE Workshop on Information Forensics and Security (WIFS), Rennes, 2017, pp. 1-6. (pdf)

**S. Agarwal**, D. Tran, L. Torresani and H. Farid. Deciphering Severely Degraded License Plates. in Electronic Imaging, Media Watermarking, Security, and Forensics, San Francisco, CA, 2017, pp. 138-143(6). (pdf)

**Conference Presentations**

S. Agarwal, W. Fan, and H. Farid. "A Diverse Large-Scale Dataset for Evaluating Rebroadcast Attacks". IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), Calgary, Alberta, Canada, April 2018.

S. Agarwal and H. Farid. "Photo forensics from JPEG dimples," 2017 IEEE Workshop on Information Forensics and Security (WIFS), Rennes, December 2017.

S. Agarwal, D. Tran, L. Torresani and H. Farid. Deciphering Severely Degraded License Plates. in Electronic Imaging, Media Watermarking, Security, and Forensics, February 2017.

## Academic Experience

**Dartmouth College**, Hanover, New Hampshire USA **2015 - 2016**
*Teaching Assistant (TA)*

Introduction to Programming and Computation (CS 1) Fall 2015, CS 1 Winter 2016, and Numerical and Computational Tools for Applied Science (CS 70/170) Spring 2016. Duties included office hours, grading and leading weekly computer lab exercises.

**IIT Delhi**, Delhi, India **2010 - 2012**
*Teaching Assistant (TA)*

Introduction to Digital Image Processing, Introduction to Logic Programming and Introduction to Computer Network courses. I helped in evaluating student assignments and exam papers.

## Professional Experience

**Adobe Systems India Private Limited**, Noida, India **2012 - 2015**
*Member of Technical Staff (MTS II), Adobe Illustrator*

My role involved algorithm designing, coding, technical brainstorming and technical designing. Main contributions were towards development of touch optimized workspace and Live Corner features in Adobe Illustrator.
*https://helpx.adobe.com/illustrator/how-to/draw-touch-environment.html*
*https://helpx.adobe.com/illustrator/how-to/live-corners-in-illustrator.html*

## Honors and Awards

Winner of the Dartmouth Rendering Competition 2018.

Best Poster Award, Computer Science Research Symposium, Dartmouth College, 2016.

MHRD (Ministry of Human Resource Development, Government of India) Scholarship towards master's degree, 2010-2012.

## Courses At Dartmouth

- Rendering Algorithms (CS 187) — Spring 2018
- Machine Learning and Statistic Analysis (CS 174) — Fall 2017
- Advanced OS (CS 258) — Winter 2017
- Computer Graphics (CS 177) — Fall 2016
- Numerical and Computational Tools for Applied Science (CS 170) — Spring 2016
- Topics in Applied Computer Science - Visual Recognition (CS 189) — Winter 2016
- Computational Aspects of Digital Photography (CS 189.15) — Fall 2015