Rohan Chandra Email : **rohan@cs.umd.edu**

ACADEMIC DETAILS

Program	University	GPA(Last Two Years)	Class High
M.S. in CS, 2018	University of Maryland, College Park	3.783	4.00
B.Tech in ECE, 2016	Delhi Technological University, India	80.00	84.00

Undergraduate Thesis: A Novel Architecture For A Band-Stop Notch Filter. **Paper**

RELEVANT CLASSES

PhD level	Text(coverage)	Masters level
Optimization	*Boyd/Research Papers*	Linear Algebra
Machine Learning	*UML, FML, Murphy*	Prob. and Stats
Computer Vision	*Research Papers*	Statistics I
Spectral Methods and Reinforcement Learning	*Research Papers*	

PUBLICATIONS

- **Rohan Chandra**, Ziyuan Zhong, Justin Hontz, Val McCulloch, Christoph Studer, Tom Goldstein, *Phasepack User Guide*, arXiv Preprint, 2017
- **Rohan Chandra**, Tom Goldstein, Christoph Studer, *Phasepack: A Phase Retrieval Library*, Submitted to IEEE Proceedings of Asilomar Conference on Signals, Signals, Systems and Computers, 2017.
- Arthur Benjamin, **Rohan Chandra**, *Multiply by 9*, The College Mathematics Journal, 2016.
- Rashika Anurag, Neeta Pandey, **Rohan Chandra**, Rajeshwari Pandey, *Voltage Mode Second Order Notch/All-Pass Filter Realization Using OTRA*, i-Manager's Journal on Electronics Engineering, 2016.

RESEARCH EXPERIENCE

- **Phase Retrieval:** Created PhasePack, a library for various classical and contemporary phase retrieval algorithms. PhasePack's purpose is to create a common interface for a wide range of phase retrieval schemes, and to provide a common test bed using both syntheitc and empirical imaging datasets.
- **Low Rank Matrix Estimation:** As part of my M.S. thesis, currently working on solving the low rank matrix estimation problem without lifting to higher dimension.
- **Texture Synthesis using Stacked VAE's:** Based on the success of DRAW - a generative model to create images, I am extending the concept to create textures.

PROJECTS

- **Autonomous Vehicles:** Implemented the lane detection module and helped engineer a joystick enabled 3-wheeler. Also worked in navigation and localisation.
- **Structure from Motion:** Wrote code from scratch and successfully reconstructed a 3-D scene from multiple images using non-linear optimization of feature point triangulation, PnP, and finally bundle adjustment. Received highest points for this project.

TEACHING EXPERIENCE

- Discrete Mathematics (Fall 2017) (Recitation, Office Hours, Grading)
- Intro to Object Oriented Programming (Spring 2017) (Office Hours, Grading)
- Computer Networks (Fall 2016) (Office Hours, Grading)

DEPARTMENTAL SERVICE

- Part of the fall 2017 **review committee** at UMD that screens applications for the Masters in CS program.

STRENGTHS & SKILLS

- **Mental Math, Speed Math**
  Techniques I developed, and are recognized:

- Faster method to mentally multiply numbers by 9, 99, 999... and so on (method co-authored with **Dr. Arthur Benjamin**
- Alternate method to square two digit numbers.
- Generalizing the "Find The Missing Digit Trick!"

- **Chess**: State Level Champion