

EDUCATION

- **University of Illinois, Urbana-Champaign**

Ph.D.

Dec. 2015 - Present

- **Research Interests:** Machine Learning, Graphical Models and Computer Vision: Using generative and discriminative models for language vision tasks. Applying techniques learnt from spin model physics to computer vision problems.

Advisor: Prof. Alexander Schwing.

- **University of Illinois, Urbana-Champaign**

Master of Science in Physics; GPA: 3.96

Aug. 2013 - Dec 2015

- Research in computational condensed matter physics. Advisor: Prof. Bryan Clark.

PUBLICATIONS

- **Fast, Diverse and Accurate Image Captioning Guided By Part-of-Speech:** Aditya Deshpande*, Jyoti Aneja*, Liwei Wang, Alexander Schwing, David Forsyth. *Accepted at CVPR 2019 [ORAL]*
- **Convolutional Image Captioning:** Jyoti Aneja*, Aditya Deshpande*, Alexander Schwing; Conference on Computer Vision and Pattern Recognition, CVPR 2018.
- **Gauge Symmetry of the 2 Dimensional Quantum Spin Liquid in Quantum Kagome Ice:** Jyoti Aneja, Bryan Clark; International Summer School on Computational Quantum Materials 2016 -University of Sherbrooke
- **Negative Ion Rich Plasmas in Continuous and Pulsed Wave Modes in a Minimum-B Magnetic Field:** Debaprasad Sahu, Shail Pandey Jyoti Aneja, Sudeep Bhattacharjee; American Institute of Physics-Physics of Plasmas
* : equal contribution

INDUSTRY EXPERIENCE

- **Snap Research**

Los Angeles, CA

Summer Internship

May 2018 - Aug 2018

- **Captioning and Graph Convolutions:** Worked on using graph convolution networks to improve diversity in current captioning models. Mentors: Dr. Ning Zhang, Ziyu Zhang

AWARDS AND RECOGNITION

- **Session Chair:** Applied Machine Learning, CSL Student Conference, UIUC-2019
- **Departmental Travel Awards:** Awarded thrice. Once to present CS paper at CVPR-2018 and twice for presenting physics research at Princeton University and University of Sherbrooke, Canada.
- **Excellent TA - UIUC:** Awarded several times for CS and Physics courses
- **Academic Excellence award:** Best Graduating Student, IIT-Kanpur.
- **DST-DFG award:** Awarded by the Department of Science And Technology, Government of India and German Research Foundation, selected for participating in meeting of The Nobel Laureates Students at Lindau, Germany.

TEACHING

- **Teaching Assistant - CS:** Machine Learning, Applied Machine Learning, Numerical Methods, Data Structures Assisted in creating theory and coding assignments. Conducted weekly office hours to help students with home works and concepts.
- **Teaching Assistant - Physics:** Classical Mechanics, Quantum Mechanics, Electrodynamics, Statistical Physics. Conducted weekly office hours involving blackboard teaching and tutorial sessions.