

## Shashank Srivastava

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Machine Learning Department  
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### Interests

Natural Language Understanding, AI, Statistical Learning

### Education

*PhD*, Machine Learning Department, Carnegie Mellon University 2014-Present  
Advisor: Tom Mitchell

*MS*, Language Technology Institute, Carnegie Mellon University July 2014  
Advisor: Eduard Hovy

*BTech-MTech Dual degree*, Computer Science and Engineering July 2011  
Indian Institute of Technology (IIT) Kanpur, India

### Employment

*Graduate Research Assistant* August 2012-present  
School of Computer Science, Carnegie Mellon University

*High Frequency Trading* July 2010 - June 2012  
Tower Research Capital LLC ([www.tower-research.com](http://www.tower-research.com))

- Design of algorithms and strategies for high frequency trading (HFT) and statistical arbitrage, developing models for predicting short duration market movements

*Summer Research Internship* May 2009- July 2009  
*Reinforcement Learning based Autoguider for Astrophotography*  
Advisors: Bernhard Scholkopf, Jan Peters, Max Planck Institute Tubingen

*Graduate Teaching Assistant*

- Convex Optimization, CMU, Ryan Tibshirani Fall, 2015
- Statistical Machine Learning, CMU, Larry Wasserman & Ryan Tibshirani Spring, 2015
- Machine Learning, IIT Kanpur, Harish Karnick Fall, 2010
- Data Structures and Algorithms, IIT Kanpur, SK Mehta Spring, 2009

### Publications

#### *Conferences:*

- S Srivastava, S Chaturvedi, T Mitchell. ‘Inferring interpersonal relationships in narrative text’. AAAI 2016 (to appear).
- S Chaturvedi, S Srivastava, H Daumé and C Dyer. ‘Modeling Evolving Relationships Between Characters in Literary Novels’. AAAI 2016 (to appear).
- S Srivastava, E Hovy. ‘Vector Space Semantics with Frequency-driven motifs’. Proceedings of ACL 2014.
- M Sachan, A Dubey, S Srivastava, E P Xing and E Hovy. Spatial Compactness meets Topical Consistency: Jointly modeling Links and Content for Community Detection. Proceedings of WSDM 2014
- S Srivastava, D Hovy, E Hovy. ‘Walk-based Tree Kernels Over Distributed Word Representations’. Proceedings of EMNLP 2013.
- K Goyal\*, S K Jauhar\*, S Srivastava\*, M Sachan\*, H Li\* and E Hovy. ‘A Structured Distributional Semantic Model for Event Coreference’. Proceedings of ACL 2013 (*\*Equally contributing*)

#### *Workshop papers, Posters and Technical Reports:*

- D Hovy, S Srivastava, S K Jauhar, M Sachan, K Goyal, H Li and E Hovy. Identifying Metaphorical Word Use with Tree Kernels. Proceedings of Meta4NLP Workshop, NAACL-HLT 2013
- K Goyal\*, S K Jauhar\*, H Li\*, M Sachan\*, S Srivastava\* and E Hovy. ‘A Structured distributional semantic model: Integrating structure with semantics’. Workshop on Continuous Vector Space Models and their Compositionality, ACL 2013 (*\*Equally contributing*)
- M Sachan and S Srivastava. ‘Collective Matrix Factorization for Co-clustering’. Proceedings of WWW 2013 (poster).
- S Chaturvedi, H Daumé , T Moon, S Srivastava, ‘A Topical Graph Kernel for Link Prediction’, Workshop on Mining and Learning with Graphs (MLG), ICML 2012
- S Srivastava, ‘Evolution of Compositional Languages in Multiple Agent Social Communities’, MTech Thesis, IIT Kanpur, 2011
- S Srivastava, S Chaturvedi, A Bhattacharya. ‘A GO based representation for prognosis and inference from microarray data’, at Asia Pacific Bioinformatics Conference, APBC 2010 (poster)
- S Srivastava, M Hirsch, J Peters, B Scholkopf, ‘A Reinforcement learning based Autoguided for Astrophotography’, MPI Technical Report, MPI Tubingen 2009

#### **Graduate coursework**

|                                |                           |                         |
|--------------------------------|---------------------------|-------------------------|
| Intermediate statistics        | Structured prediction     | Algorithms in NLP       |
| Statistical machine learning   | Semantics for NLP         | Convex Optimization     |
| Probabilistic Graphical Models | Advanced graph algorithms | Machine Learning Theory |

#### **Awards and Honors**

- Highest GPA in the class of 2012 among all MS, PhD students at LTI, CMU
- Thrice awarded ‘Academic Excellence award’ by the Indian Institute of Technology Kanpur for distinctive academic performance (top 7% of class) (2005-06, 2007-08 and 2008-09)
- Two Gold medals for highest Marks in India in the International Assessment for Schools by University of New South Wales, Australia (in both Maths and Science) in 2002
- All India Rank 11 in the Second National Science Olympiad, 2001
- Awardee of National Talent Search (NTS) Scholarship by National Council of Educational Research and Training in 2002
- Twice awarded medals for proficiency in Maths in National Talent Search Competitions
- Awarded scholarship by state Council of Science and Technology for highest marks in Science in school leaving exam in 2003
- Selected for and sponsored to attend ‘Microsoft Winter School on Machine Learning and Computer Vision’, IISc Bangalore, January 2010
- Top 0.1% in the Joint Entrance Exam to the IITs, 2005 (200,000 appearing students)
- Top 0.1% in the Combined Admission Test of the IIMs, 2011 (200,000 appearing students)

#### **Extra-curricular**

- Program committee member, Mid-Atlantic Student Colloquium on Speech, Language and Learning (MASC) October 2013
- Head Coordinator and Instructor, Summer school for Computer Literacy for rural children, ‘Shiksha Sopan’(regional NGO) May-Jul 2008
  - Initiated and synchronized practical computer training through 8 secondary tutors
  - Extended course in neighboring villages of Barasirohi and Nankari
- Senior Link Student, Counselling Service, IIT Kanpur 2007-08
  - Assisted all 5 allotted counselees (highest) to recover from academic probation
  - Emotional and academic support to eight students throughout campus stay
- Member of Institute (IITK) basketball team 2005-2009
  - Silver medal at the BITS Open, 2005, Pilani; gold at the IITK Sports Meet, 2006; and silver at IITK Sports Meet 2008
- Avid Taekwondo enthusiast, silver medal in District Junior championships