

# PURUSHOTTAM KAR

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## Areas of Interest

**Machine learning:** online and streaming methods for learning and optimization, kernel methods, learning theory.

## Employment

Duration	Employer	Position
Sep 2015 - present	Indian Institute of Technology, Kanpur	Assistant Professor
Aug 2013 - Aug 2015	Microsoft Research India Pvt. Ltd.	Postdoctoral Researcher
May 2012 - Aug 2012	Microsoft Research India Pvt. Ltd.	Doctoral Research Intern
Aug 2008 - Jul 2013	Indian Institute of Technology, Kanpur	Ph.D. Candidate

## Education

Year	Degree/Certificate	Institute/School	CPI/%
2008-13*	Ph.D., Computer Science and Engineering	Indian Institute of Technology, Kanpur	9.6/10.0
2004-08	B.Tech., Computer Science and Engineering	Indian Institute of Technology, Kanpur	9.9/10.0
2004	All India Senior School Certificate Examination	Bal Bharati Public School, New Delhi	93.2/100
2002	All India Secondary School Examination	Bal Bharati Public School, New Delhi	94.8/100

\* Degree received in 2014.

## Selected Publications (complete list available on my webpage)

- Robust Regression via Hard Thresholding. Kush Bhatia, Prateek Jain, and Purushottam Kar, 29th Annual Conf. on Neural Information Processing Systems (**NIPS**), 2015.
- Sparse Local Embeddings for Extreme Multi-label Classification. Kush Bhatia, Himanshu Jain, Purushottam Kar, Prateek Jain, and Manik Varma, 29th Annual Conf. on Neural Information Processing Systems (**NIPS**), 2015.
- Surrogate Functions for Maximizing Precision at the Top. Purushottam Kar, Harikrishna Narasimhan, and Prateek Jain, 32nd International Conference on Machine Learning (**ICML**), 2015.
- Optimizing Non-decomposable Performance Measures: A Tale of Two Classes. Harikrishna Narasimhan, Purushottam Kar, and Prateek Jain, 32nd International Conference on Machine Learning (**ICML**), 2015.
- Online and Stochastic Gradient Methods for Non-decomposable Loss Functions. Purushottam Kar, Harikrishna Narasimhan, and Prateek Jain, 28th Annual Conf. on Neural Information Processing Systems (**NIPS**), 2014.
- On Iterative Hard Thresholding Methods for High-dimensional M-Estimation. Prateek Jain, Ambuj Tewari, and Purushottam Kar, 28th Annual Conference on Neural Information Processing Systems (**NIPS**), 2014.
- Large-scale Multi-label Learning with Missing Labels. Hsiang-Fu Yu, Prateek Jain, Purushottam Kar, and Inderjit S. Dhillon, 31st International Conference on Machine Learning (**ICML**), 2014.
- On the Generalization Ability of Online Learning Algorithms for Pairwise Loss Functions. Purushottam Kar, Bharath Sriperumbudur, Prateek Jain, and Harish Karnick, 30th International Conference on Machine Learning (**ICML**), 2013.
- Supervised Learning with Similarity Functions. Purushottam Kar and Prateek Jain, 26th Annual Conference on Neural Information Processing Systems (**NIPS**), 2012.

- Random Feature Maps for Dot Product Kernels. Purushottam Kar and Harish Karnick, 15th International Conference on Artificial Intelligence and Statistics (**AISTATS**), 2012.
- Similarity-based Learning via Data driven Embeddings. Purushottam Kar and Prateek Jain, 25th Annual Conference on Neural Information Processing Systems (**NIPS**), 2011.

## Selected Awards/Grants (complete list available on my webpage)

- ▷ Dr. Deep Singh and Daljeet Kaur Faculty Fellowship, IIT Kanpur, 2015.
- ▷ Indian Unit of Pattern Recognition and Artificial Intelligence (**IUPRAI**) Doctoral Dissertation Award, 2014.
- ▷ **Microsoft Research India** Ph.D. Fellowship, 2010.
- ▷ **Yahoo!** Key Scientific Challenges Program Honorable Mention, 2012.
- ▷ **IIT Kanpur** Academic Excellence Awards, 2005, 2006.
- ▷ International Conference on Machine Learning (**ICML**) Reviewer Award, 2015.
- ▷ Neural Information Processing Systems (**NIPS**) Reviewer Award, 2013.
- ▷ Merit Certificate from the Central Board Of Secondary Education (**CBSE**), 2002, 2004.
- ▷ **Delhi Sanskrit Academy** Merit Scholarship for securing 100% marks in Sanskrit at the AISSE 2002.

## Professional Service

- PC Member for **SDM** 2015, **CODS** 2014-15.
- Reviewer for **COLT** 2015, **ICML** 2015, **NIPS** 2012-14, **IJCAI** 2015, **WALCOM** 2013, **FSTTCS** 2009.
- Reviewer for Journal of Machine Learning Research (**JMLR**), IEEE Transactions on Pattern Analysis & Machine Intelligence (**PAMI**), IEEE Transactions on Systems, Man, and Cybernetics (**SMC**), IEEE Transactions on Neural Networks and Learning Systems (**NNLS**), Neural Computation (**NECO**), Advances in Computational Mathematics (**ACOM**), Theory of Computing Systems (**TOCS**).
- Webmaster, Department of Computer Science and Engineering, IIT Kanpur, August 2009 - December 2012.

## Personal Information

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