

Saurabh Paul

Contact Information

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Research Interests

Machine Learning, Data Mining, Numerical linear Algebra

Education

Rensselaer Polytechnic Institute, NY, USA

Ph.D. in Computer Science **Aug 2010 – May 2015 (expected)**

- GPA : 3.90/4.0
- Adviser: Professor Petros Drineas
- Thesis: Matrix Sampling Algorithms for Topics in Machine Learning.

M.S. in Computer Science **Aug 2010 – Dec 2012**

- Thesis : Random Projections for Support Vector Machines.
- Adviser: Professor Petros Drineas

Bengal Engineering and Science University, India

B.E. (Hons) in Computer Science and Technology **July 2006 – April 2010**

Experience

Ebay Inc, San Jose, CA

Intern Technical PhD **May 2014 – Aug 2014**

Ebay Inc/ PayPal, Austin, TX

Intern Graduate Student **May 2013 – Aug 2013**

Rensselaer Polytechnic Institute

Research Assistant **Jan 2011 – May 2015**

Rensselaer Polytechnic Institute

Teaching Assistant **Aug 2010 – Dec 2010**

Indian Statistical Institute, Kolkata, India.

Student Intern at Applied Statistics Group. **June 2009 – July 2009**

Queen's University, Belfast, U.K.

Student Intern at ECIT Institute. **June 2008**

Publications

Journal

- **Saurabh Paul**, Christos Boutsidis, Malik Magdon-Ismael and Petros Drineas.
Random Projections for Linear Support Vector Machines.
ACM Transactions on Knowledge Discovery from Data (**TKDD**), 8(4):22, 2014.
- **Saurabh Paul** and Petros Drineas.
Feature Selection for Ridge Regression with Provable Guarantees. (under review)
- **Saurabh Paul**, Christos Boutsidis and Petros Drineas.
Core-Sets for Canonical Correlation Analysis. (in preparation)

Conference/Workshop

- **Saurabh Paul**, Malik Magdon-Ismael and Petros Drineas.
Feature Selection for Linear SVM with Provable Guarantees.
In Proceedings of 18th **AISTATS**, JMLR: W&CP 38, pp. 735–743, 2015.
- **Saurabh Paul** and Petros Drineas.
Deterministic Feature Selection for Regularized Least Squares Classification.
In Proceedings of **ECML-PKDD**, Part II, LNCS 8725, pp. 533-548, 2014.
- **Saurabh Paul**, Malik Magdon-Ismael and Petros Drineas.
Deterministic Feature Selection for Linear Support Vector Machines.
New England Machine Learning Day, (**NEML**), 2014.
- **Saurabh Paul**, Christos Boutsidis, Malik Magdon-Ismael and Petros Drineas.
Random Projections for Support Vector Machines.
In Proceedings of 16th **AISTATS**, JMLR: W&CP 31, pp. 498-506, 2013.

Talks

- *Data Analytics via Matrix Sampling Algorithms.* **Bell Labs**, Nov 2014.

- *Deterministic Feature Selection for Regularized Least Squares Classification.* **ECML-PKDD**, Sept 2014.
- *Dimensionality Reduction Methods for Linear SVM.* **eBay Research Labs**, July 2014.
- *Application of Boosted Regression methods in Credit Modeling.* **eBay Inc.**, July 2014.
- *Random Projections for Linear SVM.* **Internet-of-Things GE-RPI Day**, April, 2014.
- *Feature Selection & Model Selection Methods for Risk Detection.* **eBay Inc.**, August 2013.
- *Ensemble Model Selection Methods for Risk Detection.* **eBay Inc.**, July 2013.

Graduate Coursework (completed)

Machine Learning, Database Mining, Randomized Algorithms, Computational Optimization, Computational Linear Algebra, Parallel Computing, Linear Algebra, Computer Operating Systems, Programming Languages, Computer Algorithms, Computability and Complexity.

Computer Skills

- Programming : C, C++, Java, Python, MATLAB, R, MPI, HTML.
- Database Management Systems: SQL.
- Tools: LIBSVM, LIBLINEAR, CLapack, Eclipse, CytoScape.
- Operating Systems: Linux/Unix, Windows.
- Typography: Latex, Microsoft Office.

Academic Honors

- NSF Travel Scholarship to attend ECML-PKDD 2014, AISTATS 2013.
- NSF Travel Scholarship to attend RandNLA Workshop at FOCS 2012.
- RPI Service Award 2011, 2012.
- Full Scholarship for Electronics Engineer's Welcome Scheme, Queen's University, Belfast, 2008.
- Placed within 0.57% among 60,000 candidates in WBJEE (Engineering Entrance Exam) 2006.
- 25th Rank among over 400,000 students in Madhyamik Pariksha (Secondary School Exam), 2004.

Professional Activities

- Reviewing: Journal of Selected Topics in Signal Processing (JSTSP), Neurocomputing. Subreviewer for ICPRAM 2013, ICDM 2014.
- Introducing Prospective Graduate Students to different research groups at CS Dept, RPI.
- Peer advisor to incoming graduate students, 2011-2012.
- Member of Graduate Admissions Committee, RPI, USA, 2011-2012.
- Student Member: SIAM, ACM.