Zhimin Peng

Contact Information

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Education

University of California, Los Angeles, CA — 2013 – present
Ph.D. candidate, Department of Mathematics, GPA: 4.00/4.00

Rice University, Houston, TX — 2011 – 2013
M.A., Computational & Applied Math, GPA: 3.99/4.00

Xi'an Jiaotong University, Xi'an, China — 2007 – 2011
B.S., Information & Computing Science, GPA: 90.7/100

Research Interest

Large scale optimization; Sparse optimization; Distributed computing; Machine learning

Experiences

University of California, Los Angeles, CA, USA — 2013 – present
Research Assistant. Mentor: Dr. Wotao Yin

- Developing asynchronous methods for solving large scale convex optimization problems.

Rackspace, San Fransisco, CA, USA — Summer 2014
Data Science Intern.

- Developed effective anomaly detection algorithms for cloud intelligence.
- Customer intelligence. Performed customer text analysis.
- Predictive analysis for auto scale engine.

Rice University, Houston, TX, USA — 2011 – 2013
Research Assistant. Mentor: Dr. Wotao Yin

- Developed efficient parallel and distributed algorithms for large scale sparse optimization problems, including LASSO, sparse logistic regression and sparse SVM.

U.S. Army Research Lab, Adelphi, MD, USA — Summer 2012
Machine Learning Intern. Mentor: Dr. Hessung Kwon

- Developed an efficient machine learning model called optimal sparse kernel learning (OSKLAD) for detecting anomalies in hyperspectral images.

Chinese University of Hong Kong, Hong Kong, China — Spring 2011
Research Assistant. Mentor: Dr. Bo Huang

- Developed a Laplacian pyramid algorithm for information fusion of remote sensing images.

Selected Publications

Z. Peng, M. Yan, W. Yin. Parallel and Distributed Sparse Optimization. IEEE Asilomar Conference, 2013. (**Best Student Paper Finalist**)

W. Deng, MJ. Lai, Z. Peng, W. Yin. Parallel Multi-Block ADMM with o(1/k) Convergence. arXiv preprint arXiv:1312.3040, 2013.

Z. Peng, P. Gurram, H. Kwon, W. Yin. Optimal Sparse Kernel Learning for Hyperspectral Anomaly Detection. IEEE WHISPERS, 2013.

Z. Peng, P. Gurram, H. Kwon, W. Yin. Optimal Sparse Kernel Learning in the Empirical Kernel Feature Space for Anomaly Detection. IEEE Transactions on Aerospace and Electronic Systems, 2014.

Y. Liu, Z. Peng, W. Symmes, W. Yin. Sparse Radon Transform with Dual Gradient Ascent Method. SEG Annual Meeting, 2013.

Awards

Rice Graduate Fellowship, Rice University — 2011 – 2012
National Scholarship, Chinese Ministry of Education — 2009 – 2010
Zhong Jiao Tong Li Scholarship, ZJTL Construction CO.,LTD — 2008 – 2009
Peng Kang Scholarship, Xi'an Jiaotong University, China — 2007 – 2008

Skills

Programming: C, C++, Python, R, Matlab, SQL — Parallel: MPI, OpenMP, CUDA
Platforms: Windows, Linux, Amazon EC2