Ioannis Mitliagkas
Curriculum Vitae

Contact Information

Department of Statistics
Stanford University
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Research Interests

Machine Learning, Streaming Algorithms, Large Graph Analytics.

Academia

Stanford University

Postdoctoral fellow, Departments of Statistics and Computer Science

Started September 2015

- Advised by: Assistant Prof. Lester Mackey
- Advised by: Assistant Prof. Christopher Ré

The University of Texas at Austin

PhD, ECE department. August 2015

- Advised by: Prof. Constantine Caramanis
- Advised by: Prof. Sriram Vishwanath
- GPA: 3.82/4.0

Technical University of Crete, Chania, Greece

MSc. in ECE dept. September 2008 - July 2010

Successfully defended thesis in the summer of 2010.

- Advisor: Professor Nikos D. Sidiropoulos
- Area of Study: Optimization Problems in Wireless Telecommunications

Diploma, Electronic and Computer Engineering, Sept. 2002 - Sept. 2008

- Advisor: Professor Nikos D. Sidiropoulos
- Thesis Topic: Convex Approximation-based Joint Power and Admission Control for Cognitive Underlay Networks
- GPA: 9.01/10

Scholarships, Awards

Gerondelis Foundation Inc.,
- Graduate Scholarship, 2014

The University of Texas at Austin
- Microelectronics and Computer Development (MCD) Fellowship, 2009-2011

Technical University of Crete
- Undergraduate excellence award, 2008

State Scholarships Foundation (Greece)
- Undergraduate excellence award, 2005

Technical Chamber of Greece
- Undergraduate excellence award, 2005

Academic Experience

Teaching - Information Theory	**Spring 2012**
Teaching - Telecommunication Networks	**Fall 2008**
Undergraduate Researcher	**May 2007 to August 2008**

Publications

I. Mitliagkas, C. Caramanis, P. Jain. Streaming, Parallel PCA. In preparation for *JMLR*, 2015.

I. Mitliagkas, M. Borokhovich, A. Dimakis, C. Caramanis FrogWild! – Fast PageRank Approximations on Graph Engines. To appear, *VLDB*, 2015 – Preliminary version appeared at *NIPS* Workshop.

I. Mitliagkas, C. Caramanis, P. Jain. Streaming PCA with Many Missing Entries. Submitted to *ICML*, 2015.

D. Papailiopoulos, I. Mitliagkas, A. Dimakis, C. Caramanis. Finding dense subgraphs through low-rank approximations. *ICML, 2014*.

I. Mitliagkas, C. Caramanis, P. Jain. Memory-limited Streaming PCA. Appeared in *NIPS, 2013*.

I. Mitliagkas, A. Gopalan, C. Caramanis, S. Vishwanath. User Rankings from Comparisons: Learning Permutations in High Dimensions. *Allerton Conference on Communication, Control, and Computing, 2011*.

I. Mitliagkas, N. D. Sidiropoulos, and A. Swami. Joint Power and Admission Control for Ad-hoc and Cognitive Underlay Networks: Convex Approximation and Distributed Implementation. *IEEE Transactions on Wireless Communications, 2011*.

I. Mitliagkas, S. Vishwanath. Strong Information-Theoretic Limits for Source/Model Recovery. Appeared in *Allerton Conference on Communication, Control, and Computing, 2010*.

I. Mitliagkas, N. D. Sidiropoulos, and A. Swami. Distributed Joint Power and Admission Control for Ad-hoc and Cognitive Underlay Networks. *ICASSP 2010*.

I. Mitliagkas, N. D. Sidiropoulos, and A. Swami. Convex Approximation-based Joint Power and Admission Control for Cognitive Underlay Networks. *International Wireless Communications and Mobile Computing Conference, 2008. IWCMC'08. IEEE*.

Professional Service

Reviewer for a number of journals and conferences including NIPS, ICML, Transactions on Information Theory, ISIT, ICASSP, Transactions on Wireless Communications.

Technical Skills

Languages: C, C++, Java, Python, Matlab, Scala.

Distributed programming: Worked on MapReduce, Spark, GraphLab, Amazon EC2 infrastructure. Hacked the engine of GraphLab to improve its random algorithms support (cf. our FrogWild! paper). Experience in MPI.

Parallel programming: Lock-free multi-threaded programming in C, multi-process programming in Python.

Other: Some experience in reverse software engineering and network vulnerability detection tools. Hardware design and programming: VHDL, assembly language programming (x86, MIPS, AVR).

Graduate Course Highlights

Algorithms: Techniques and Theory (CS department)

Convex Analysis

Information Theory

Randomized Algorithms (CS department)

Systems Theory

Topics in Network Sciences

Analysis and Design of Communication Networks

Theory of Probability (Math Department)

References

Lester Mackey, Stanford University

Christopher Ré, Stanford University

Constantine Caramanis, UT Austin

Sriram Vishwanath, UT Austin

Alex Dimakis, UT Austin

Nikos D. Sidiropoulos, University of Minnesota

Prateek Jain, Microsoft Research India