Maheswaran (Mahesh) Sathiamoorthy

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WORK EXPERIENCE

Sr. Software Engineer, Google Inc., CA · **June 2016 – Present**
- Building machine learning models to decrease job interference.
- Proposed and designed an optimization algorithm to determine job placement to improve throughput.
- Built a model to determine how to safely overcommit resources of a particular product.
- Decreased IOPs going to HDDs of a big storage system by picking the optimal set of files to put on flash.

Software Engineer, Google Inc., CA · **Jan 2014 – June 2016**
- Increased the usage of flash by **several orders of magnitude**. This required building pipelines to characterize workloads, implement optimization algorithms that decide which workloads to put on flash (and for how long), and building dashboards to help internal customers understand their workloads.

EDUCATION

University of Southern California, Los Angeles, CA
Doctor of Philosophy (PhD), Electrical Engineering · **Aug 2008 – Dec 2013**
- GPA: 3.93/4
- Advisors: Prof. Bhaskar Krishnamachari & Prof. Alexandros G. Dimakis

Indian Institute of Technology (IIT), Kharagpur, West Bengal, India
B.Tech(H), Electronics and Electrical Communication Engineering · **July 2004 – May 2008**
- GPA: 9.27 out of 10.00
- Ranked 3/50 in the department and 7/650 in the Institute

INTERNSHIP EXPERIENCE

TURN Inc., Redwood City City, CA
Intern · Sept 2013 – Nov 2013

Symantec Research Labs, Culver City, CA
Research Intern · May 2013 – Aug 2013

General Motors R&D, Warren, MI
Visiting Scholar · May 2011 – Aug 2011

University of Southern California, Los Angeles, CA
Summer Intern · May 2007 – July 2007

Nanyang Technological University, Singapore
Summer Intern · May 2006 – July 2006

PUBLICATIONS
- M. Sathiamoorthy, M. Asteris, D. Papailiopoulos, A. G. Dimakis, R. Vadali, S. Chen, D. Borthakur, "XORing Elephants: Novel Erasure Codes for Big Data", *Accepted for publication, VLDB 2013.*
- M. Sathiamoorthy, A. G. Dimakis, B. Krishnamachari, F. Bai, "Distributed Storage Codes Reduce Latency in Vehicular Networks", *Accepted for publication, Transactions on Mobile Computing 2013.*
- J. Ahn, M. Sathiamoorthy, B. Krishnamachari, F. Bai, L. Zhang, "Optimizing Content Dissemination in Vehicular Networks with Radio Heterogeneity", *Accepted for publication, Transactions on Mobile Computing 2013.*
- M. Sathiamoorthy, W. Gao, B. Krishnamachari, G. Cao, "Minimum Latency Data Diffusion in Intermittently Connected Mobile Networks", in *2012 IEEE 75th Vehicular Technology Conference: VTC2012-Spring, 6-9 May 2012, Yokohama, Japan.*
- M. Sathiamoorthy, A. G. Dimakis, B. Krishnamachari, F. Bai, "Distributed Storage Codes Reduce Latency in Vehicular Networks", in *Proceedings of the IEEE INFOCOM Mini-conference, 2012.*

- M. Alresaini, M. Sathiamoorthy, B. Krishnamachari, M. J. Neely, "Backpressure with Adaptive Redundancy (BWAR)", in *Proceedings of the IEEE INFOCOM, 2012.*
- S. Lee, S. Pattem, M. Sathiamoorthy, B. Krishnamachari, A. Ortega, "Spatially-Localized Compressed Sensing and Routing in Multi-Hop Sensor Networks", in *3rd International Conference on Geosensor Networks*, July 2009, Pages 11-20.

PATENTS

- M. Sathiamoorthy, F. Guo, A. G. Dimakis, "Systems and methods for decreasing RAID rebuilding time", *issued 2017.*

RECENT COURSEWORK

- Neural Networks for Machine Learning (Prof. Hinton, certificate), 2017
- Machine Learning Incubator program (3 weeks, Google), 2017

HONORS AND AWARDS

- USC Annenberg Fellowship 2008-2012 - University of Southern California
- InfoUSA Summer Fellowship 2007 - University of Southern California
- One of the seven finalists of Trilogy's Pirates of the Corporate, a web 2.0 business plan contest held at Hong Kong.
- Amateur Radio License (Grade II) from Ministry of Communications, Government of India (2003).
- Ranked among top 0.5% of about 170,000 students appeared in JEE 2004.