

Karthekeyan Chandrasekaran

CONTACT INFORMATION	Room 2116, Klaus Advanced Computing Building 266, Ferst Drive, Atlanta, GA 30332 <i>Email:</i> karthe@gatech.edu <i>Mobile:</i> 1-404-567-9756	Graduate Student College of Computing Georgia Institute of Technology <i>WWW:</i> http://www.cc.gatech.edu/~karthe
RESEARCH INTERESTS	Randomized Algorithms, Derandomization, Probabilistic Methods, Sampling.	
EDUCATION	Ph.D. in Algorithms, Combinatorics and Optimization Georgia Institute of Technology, Atlanta.	- Currently enrolled
	B.Tech. in Computer Science and Engineering Indian Institute of Technology, Madras. Final GPA - 9.45/10	- June, 2007
COMPUTER SKILLS	C, C++, Java, Matlab.	
PUBLICATIONS	Deterministic Algorithms for the Lovasz Local Lemma (with N. Goyal, B. Haeupler) - (to appear in) ACM-SIAM Symposium on Discrete Algorithms (SODA 2010), Jan 2010.	
	Thin Partitions: Isoperimetric Inequalities and Sampling Algorithms for some Non-convex Families (with D. Dadush, S. Vempala) - (to appear in) ACM-SIAM Symposium on Discrete Algorithms (SODA 2010), Jan 2010.	
	An Observation about Variations of the Diffie-Hellman Assumption (with R. Bhaskar, S. V. Lokam, P. L. Montgomery, R. Venkatesan, Y. Yacobi) - (to appear in) Serdica Journal of Computing (Vol.3, No.3), 2009.	
	Sampling s-Concave Functions (with A. Deshpande, S. Vempala) - 13th International Workshop on Randomization and Computation (RANDOM 2009), Aug 2009.	
	Vulnerabilities in Anonymous Credential Systems (with R. Bhaskar, S. V. Lokam, P. L. Montgomery, R. Venkatesan, Y. Yacobi) - 3rd International Workshop on Security and Trust Management (STM 07), Sep 2007.	
RESEARCH PROJECTS	Benchmarking Network Topologies with Ellen Zegura and Santosh Vempala.	- Dec, 2008 - Jan, 2009
	Anonymous Credentials with Dr. Ramarathnam Venkatesan, Dr. Satya V. Lokam and Dr. Raghav Bhaskar Cryptography, Security and Applied Mathematics group, Microsoft Research, Bangalore.	- Summer 2007
	Secret Sharing for Commodity Schemes and Robust PIR Combiners BTech Project, Guide: Prof. Pandu Rangan, IIT Madras.	- 2006-2007
	Primality Testing with Dr. Ramarathnam Venkatesan	- Summer 2006

Cryptography and Security group, Microsoft Research, Redmond.

IN SUBMISSION

NetMark: Selecting a Benchmark of Network Topologies
(with Ellen Zegura, Santosh Vempala)

TECHNICAL
REPORTS

Sampling Near-Convex Bodies
guided by Dr. Santosh Vempala.

- Aug-Dec, 2008

Use of Spectral Projection in Expectation Maximization for Spherical Gaussians

with Hassan Kingravi, guided by Dr. Santosh Vempala.

- Aug-Dec, 2007

Secret Sharing for Commodity Schemes and Robust PIR Combiners

Undergraduate thesis at IIT, Madras, guided by Prof. Pandu Rangan.

- 2006-2007

WORK EXPERIENCE

- Research Intern

Algorithms Research Group, Microsoft Research, Bangalore

- **Summer, 2009**

Cryptography, Security and Applied Mathematics Group,
Microsoft Research, Bangalore

- **Summer, 2007**

Cryptography and Security Group, Microsoft Research, Redmond

- **Summer, 2006**

AWARDS AND
HONORS (CS)

- Placed among the top finishers in the ACM ICPC regionals, Coimbatore - Dec, 2005.
- Selected for the pre-final round of Code4Bill, organised by Microsoft, India - Apr, 2006.

AWARDS AND
HONORS (GENERAL)

- Award of National Merit Scholarship by IIT-Madras for a cgpa of above 9.0 - 2003-2007.