Gayathri Chandrasekaran

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WINLAB, Rutgers University  
New Jersey Technology Center  
671 Route 1 South  
North Brunswick, NJ 08902

SUMMARY Seeking a challenging full-time position in wireless industry or research laboratory.  
Highly skilled and motivated professional with over 5 years of research experience

EDUCATION **WINLAB, Rutgers University, NJ** **GPA: 3.9/4.0**  
*Ph.D., Computer Science* Expected: May 2011  
  
**WINLAB, Rutgers University, NJ GPA: 3.9/4.0**   
*M.S, Computer Science*  Sep 2006-Oct 2008 **Ohio State University, OH GPA: 3.7/4.0**  
*Graduate Student*  Sep 2004-May 2006 **Birla Institute of Tech. & Science (B.I.T.S), Pilani, INDIA GPA: 9.5/10**  
*M.Sc. (Tech) Information Systems* Aug 2000-Jun 2004

EXPERIENCE **AT&T Research Labs**, Florham Park, NJ **May 2009 – Sep 2009***Research Intern*

* Designed algorithms for vehicular speed estimation using GSM signal strength
* Evaluated the performance of algorithms using real-experimental trace

**Nokia Research Centre(NRC),** Palo Alto, CA **Jun 2007- Sep 2007**

*Research Intern*

* Designed a privacy preserving scalable infrastructure for mobile advertising
* Implemented a LBS called “Virtual Posting” and ported the application to Mobile Device
* Proposed caching of location based data at the wireless routers for scalability and privacy.

**WINLAB, Rutgers University,** Piscataway, NJ **Sep 2006-Aug 2009**

*Graduate Research Assistant*

* [2009-present] Design, implementation and evaluation of algorithms for speed estimation using GSM Signal Strength. Collaboration with AT&T Labs, NJ
* [2010-present] Acoustic localization of mobile phones in car for driver safety applications
* [2008] Empirical Evaluation of the limits on localization using signal strength in the high-density ORBIT testbed
* [2008] Evaluation of algorithms for spoofing detection using 802.11e wireless devices
* [2007-2008] Design, implementation and evaluation of algorithms for inferring context information about Human Co-Mobility.
* [2006-2007] Experimental evaluation of a mechanism for bootstrapping a location service using geo-coded postal addresses.

**Department of CSE, Ohio State University,** Columbus OH **Sep 2004-Jun 2006**

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| AWARDS &  HONORS |

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| * University Fellowship at The Ohio State University, Sep 2004 - Aug 2005 * JNCASR Summer Research Fellowship, May-Aug 2003 * Merit Scholarship, BITS Pilani for maintaining a GPA of 10/10, Aug 2000-Jun 2001 * Certificate of Merit for topping chemistry in AISSCE, May 2000 |

*Graduate Fellow***Dept. of CS, Indian Institute of Science (IISc.)**, Bangalore, India**May 2003 - July 2003***JNCASR Summer Research Fellow*

SKILLS **Programming languages**: C, C++, Perl, Python, Shell scripting, JAVA, J2EE, J2ME

**Tools**: MATLAB. Wireshark, network and OS tools on UNIX/LINUX

PUBLICATIONS  
  
CONFERENCES & WORKSHOPS

1. *Derivative Time Warping Algorithm for Vehicular Speed Tracking,* **Gayathri Chandrasekaran**, Tam Vu, Alexander Varshavsky, Marco Gruteser, Rich Martin, Jie Yang, Yingying Chen, Under Submission for IEEE Percom 2011
2. *Vehicular Speed Estimation using GSM Signal Strength* **Gayathri Chandrasekaran**, Tam Vu, Alexander Varshavsky, Marco Gruteser, Rich Martin, Jie Yang, Yingying Chen, Proceedings of ACM International Conference on Ubiquitous Computing(UBICOMP), Sep 2010 [AR: 19%]
3. *Detecting Identity Spoofs in 802.11e Wireless Networks,* **Gayathri Chandrasekaran**, John-Austen Deymious, Vinod Ganapathy, Wade Trappe, Marco Gruteser, IEEE GLOBECOM, December 2009 [AR: 34%]
4. *Empirical Evaluation of the Limits on Localization Using Signal Strength: Beyond Cramér-Rao Bounds,* **Gayathri Chandrasekaran**, Mesut Ergin, Jie Yang, Song Liu, Yingying Chen, Marco Gruteser, Rich Martin. IEEE SECON 2009, June 2009 [AR: 19%]
5. *DECODE : Detecting Co-Moving Wireless Device,* **Gayathri Chandrasekaran**, Mesut Ergin, Marco Gruteser, Rich Martin, Jie Yang, Yingying Chen, IEEE MASS, Sep 2008 (short paper) [AR: 20%]
6. *Bootstrapping a Location Service Through Geocoded Postal Addresses,* **Gayathri Chandrasekaran**, Mesut Ergin, Marco Gruteser, Rich Martin, 3rd Intl. Symposium on Location- and Context-Awareness (LoCA, held with UbiComp), Sep. 2007 [AR: 31%]
7. *HIMAC: High Throughput MAC Layer Multicasting in Wireless Networks,* Ai Chen, **Gayathri Chandrasekaran**, Dongwook Lee, and Prasun Sinha, IEEE MASS*,* Oct. 2006.
8. *Optimizing Broadcast Load in Mesh Networks using Dual Association,* Dongwook Lee, **Gayathri Chandrasekaran**, and Prasun Sinha *Invited Paper, In Proc. of WiMESH (IEEE Workshop on Wireless Mesh Networks),* Sep. 2005

JOURNALS

1. *DECODE : Exploiting Shadow Fading to Detect Co-Moving Wireless Devices,* **Gayathri Chandrasekaran**, Mesut Ergin, Marco Gruteser, Rich Martin, Jie Yang, Yingying Chen, IEEE Transactions on Mobile Computing, Dec 2009, vol. 8 no. 12 (Extended Version of Mass 2008 Paper)
2. *High Throughput MAC Layer Multicasting over Time-Varying Channels,* Ai Chen, **Gayathri Chandrasekaran**, Dongwook Lee, and Prasun Sinha, Elsevier Computer Communications (COMCOM) , Volume 32, Number 1, pp 94-104, Jan. 2009
3. *GRAIL: A General Purpose Localization System,*Yingying Chen, **Gayathri Chandrasekaran**, Eiman Elnahrawy, John-Austen Francisco, Konstantinos Kleisouris, Xiaoyan Li, Richard P. Martin, Robert S. Moore, Begumhan Turgut, Sensor Review, special edition, Localization Systems, Vol. 28, No. 2, pp.115-124, 2008.
4. *Association Management for Data Dissemination over Wireless Mesh Networks,* Dongwook Lee, **Gayathri Chandrasekaran**, Mukundan Sridharan and Prasun Sinha, Elsevier Computer Networks, 2007

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| * Peer reviewer for Pervasive 2008, ACM Mobisys 2009, ACM HotMobile 2009, IEEE Transactions on Information and Systems Security, IEEE Transactions on Mobile Computing, IEEE Communication Letters * Joint Coordinator for APOGEE-2003 ( A technical festival), B.I.T.S Pilani, India |

PROFESSIONAL SERVICE

MISCELLANEOUS Country of Citizenship : INDIA  
VISA Status in US : Permanent Resident