

Saguna

PERSONAL INFORMATION	Date of Birth: 1981-11-02; Woman; Contact Information: 1/123 Lowanna Street, Braddon, Canberra, ACT, Australia, 2612; Ph: +61-452397267 (M), Email: saguna.mail@gmail.com
RESEARCH INTERESTS	Mobile, Pervasive and Ubiquitous Computing, Human Computer Interaction, Social Networks
EDUCATION	<p>Doctor of Philosophy (Information Technology/Media Technology) 2013 (Dual-Badge) Monash University, Australia & Luleå University of Technology, Sweden</p> <ul style="list-style-type: none">• Thesis title: <i>Complex Activity Recognition and Context Validation within Social Interaction Tools</i>• Advisers: Professor Arkady Zaslavsky (CSIRO), Dr. Dipanjan Chakraborty (IBM), Associate Professor Kåre Synnes (LTU) and Professor David Abramson (UQ) <p>Master of Information Technology (Minor Thesis) 2008 <i>with High Distinction</i> Monash University</p> <ul style="list-style-type: none">• Thesis title: <i>Determining User Presence using Context in a Decentralized Unified Messaging System</i> <p>Postgraduate Diploma in Digital Communications 2006 <i>with Distinction</i> Monash University</p> <p>Bachelor of Information Systems (Honours) 2004 <i>with First Class Honours & Recognition Award</i> received for academic performance GGS Indraprastha University, Delhi, India</p>
RESEARCH EXPERIENCE	<p>Research Intern/Visiting PhD Student - 1 year 7 months Jan 2011 to present CSIRO, ICT Centre, Canberra, Australia</p> <ul style="list-style-type: none">• Research Intern - 1 year (Apr 2012 - Jun 2012 and Nov 2013 - present) Focus: The research lies within the Emergency Situation Awareness Project. The project involves sourcing and analysing social media content with a focus on Twitter. Manager: Prof. Arkady Zaslavsky• Visiting PhD Student - 7 months (Dec 2011 - Mar 2012 & Jul - Oct 2012) Advisor: Prof. Arkady Zaslavsky <p>Research Intern - 3 months Jun 2008 to Aug 2008 IBM Research Lab, New Delhi, India</p> <ul style="list-style-type: none">• Focus: The area of research was real-time social-networking with semantic search for enabling real-time activities amongst users of the system. The outcomes were published in a paper in IEEE Mobile Data Management Conference (MDM) 2009. <p>Research Intern - 9 months Jan 2004 to Sep 2004 3Com India Ltd, New Delhi, India</p> <ul style="list-style-type: none">• Focus: Contributed towards the development of a Web-based Network Management System (NMS) based on net-SNMP, C and Java.

1. **Saguna, A. Zaslavsky and D. Chakraborty, Complex Activity Recognition using Context Driven Activity Theory and Activity Signatures in *ACM Transactions on Computer-Human Interaction* (ACM-TOCHI), 2013**
To Appear in 20.5 issue 2013, Impact Factor: 1.833 (source: ACM Library)
2. **Saguna, A. Zaslavsky and D. Chakraborty, Building Activity Definitions to Recognize Complex Activities Using an Online Activity Toolkit in *Proc. of the 13th International Conference on Mobile Data Management* (MDM), Bengaluru, India, 2012 – Demo Track**
3. **Saguna, A. Zaslavsky and C. Paris, Context-Aware Twitter Validator (CAT Val): A System to Validate Credibility and Authenticity of Twitter Content for use in Decision Support Systems in *Proc. of the 16th IFIP WG8.3 International Conference on Decision Support Systems* (DSS), Anvissos, Greece, 2012**
4. **Saguna, A. Zaslavsky and D. Chakraborty, Recognizing concurrent and interleaved activities in social interactions in *Proc. of 9th International Conference on Pervasive Intelligence and Computing* (PiCOM), Sydney, Australia, 2011**
5. **Saguna, A. Zaslavsky and D. Chakraborty, Complex Activity Recognition using Context Driven Activity Theory in Home Environments in *Proc. of Smart Spaces and Next Generation Wired/Wireless Networking* (ruSMART/NEW2AN), St Petersburg, Russia, 2011**
6. **Saguna, A. Zaslavsky and D. Chakraborty, Towards a Robust Concurrent and Interleaved Activity Recognition in *Proc. of 12th International Conference on Mobile Data Management: Systems, Services and Middleware* (MDM), Luleå, Sweden, 2011**
7. **Saguna, Inferring Multiple Activities of Mobile Users with Activity Algebra in *Proc. of 12th International Conference on Mobile Data Management: Systems, Services and Middleware* (MDM) Doctoral Consortium, Luleå, Sweden, 2011**
8. **Saguna, A. Zaslavsky, and D. Chakraborty, CrysP: Multi-Faceted Activity-Infused Presence in Emerging Social Networks in *Proc. of Smart Spaces and Next Generation Wired/Wireless Networking* (ruSMART/NEW2AN), volume 6294, Springer Berlin / Heidelberg, 5061, 2010.**
9. **Saguna, Detecting and Sharing Multiple Activity-Infused Crystal Presence Information with Social Interaction Tools in *Proc. of the 7th International Conference on Pervasive Services* (ICPS), Doctoral Consortium session 1: Interfaces, adaptations and activity recognition in pervasive systems, Berlin, Germany, July13-15, 2010**
10. Nilanjan Banerjee, Dipanjan Chakraborty, Koustuv Dasgupta, Sumit Mittal, Seema Nagar and **Saguna, R-U-In? - Exploiting Rich Presence and Converged Communications for Next-generation Activity-Oriented Social Networking** in *Proc. 10th International Conference on Mobile Data Management* (MDM), May, 2009
11. **Saguna, Prem Prakash Jayaraman, and Arkady Zaslavsky, Determining User Presence using Context in a Decentralized Unified Messaging System (IPAD-UMS) in *Proc. 6th Conference on Mobile and Ubiquitous Systems: Computing, Networking and Services* (MobiQuitous), July 2009**

AWARDS

- Monash Graduate Scholarship**, Monash University
 • 23,728 AUD per annum May 2008 - Oct 2009
- Australian Postgraduate Award**, Monash University
 • 23,728 AUD per annum Nov 2009 - Mar 2011
- Australian Postgraduate Award (extension)**, Monash University
 • 23,728 AUD per annum Apr 2011 - Sept 2011
- Faculty of Information Technology Award**, Monash University May 2008
- Academic Excellence Award**, GGS Indraprastha University Feb 2003

Travel Funding

- Travel to LTU, Sweden
- Travel to ICPS Conference, Berlin, Germany

Other Awards

- Secured award in CoolCampus Monash Mobility Competition 2005
 Monash University,
- Secured award at IEEE Cascade (National Level) 2002
 Delhi College of Engineering,
 Presented a paper on GSM/CDMA technology

TEACHING EXPERIENCE Feb 2007 - Jun 2011

Providing guidance to both undergraduate and postgraduate students for research assignments, helping with lab work, demonstrations and taking presentations. Also, involved in marking of assignments, tutorials, demonstrations and research projects at both at Monash University and Luleå University of Technology

Teaching Associate (TA)

- CSE5501/FIT5046 Mobile and Distributed Computing S1 2008, S1 2009
- CSE5807 Wireless and Personal Communication Systems S2 2007, S2 2009
- CPE5013/CPE3012/CSE3153/FIT2018 Network Administration S1 2008, S1 2009
- FIT1005 Networks and Data Communications S1 2007
- FIT5094 IT for Management Decision Making S1 2008
- D7024E Mobile and Distributed Computing LP2 2009, LP2 2010

Guest Lecture

- Guest Lectured in the area of Activity Recognition

OTHER EXPERIENCE

- **RQF Data Integrity Officer**, Monash University Jun 2007 - Dec 2007
- **Project Developer/Software Engineer** Jan 2003 - Aug 2003
 New Delhi Institute of Management
 Developed an Online Counselling System for the MBA admission process of GGS Indraprastha University. It also involved building a centralized server with distributed nodes around the campus for performing various real-time operations and updates. Key technologies used were Visual Basic 6, MSSQL 2000, Crystal Reports and Windows NT Server.
- Member of **local organizing committee** at IEEE MDM Conference Jun 2011
- **TPC Member** of ACM SAC Conference 2012, 2013
- **Reviewer** for ACC Conference 2012

PRESENTATIONS

- Presented papers and poster at conferences such as MDM 2011 and ICPS 2010
- Presented seminar on PhD research at Monash University, LTU and CSIRO
- Presented research work at IBM, India Research Lab and Australia Research Lab

SKILLS

- **Programming:** Java (primary), C (working knowledge), C++ (working knowledge), JavaScript, PHP, SQL, MySQL, XML, OWL, RDF, CSS

- **Tools:** WEKA, Eclipse, NetBeans, Dreamweaver, Protege, IBM WebSphere, Apache Tomcat
- **Networking:** Extensive experience with deployment of network hardware such as routers, switches and several other wireless devices.
- **OS:** Windows and Linux
- **People and Writing skills:**
 - Excellent communication skills and have an eye for detail
 - Proficient in written skills such as report writing and presentation skills
 - Excellent English Language Skills, **IELTS score: Overall band Score: 8.0/9.0;** Individually, Reading 9.0/9.0, Writing: 8.5/9.0, Listening: 7.0/9.0, Speaking: 8.0/9.0

COURSES:
GRADUATE AND
UNDERGRADUATE

- **Undgraduate:** Mathematics I, II, III and IV, Design and Analysis of Algorithms, Software Engineering I and II, Data Warehousing and Data Mining, Mobile Computing, Artificial Intelligence, Computer Architecture, Digital Electronics, Parallel and Distributed Computing, Computer Graphics, Numerical Techniques, Linux/Unix/Windows Programming, Data Structure with C++, Programming Concepts and C Language, DBMS, E-Commerce
- **Postgraduate:** Mobile and Distributed Computing Systems, Internet Devices and Services, Advanced Network Design, Quality of Service in Digital Communication Networks, Wireless and Personal Communication Systems, Advanced Internet Protocols and Application, Digital Video Coding and Compression, Network Security, IT Research Methods

EXTRACURRICULAR
ACTIVITIES

- Participated in a number of cultural activities and debates in school/college and won awards
- Participated in Sports Meet during High School (with 26 participating schools from all over India), Silver Medal for 400m athletics run, Gold Medal for 4X100 Relay athletics run, Silver Medal for Long Jump and Silver Medal for Basketball

HOBBIES

- Basketball, photography, travelling and Bharatnatyam (a form of classical Indian dance)

REFERENCES

- Available on Request