

Tamim Sookoor

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www.tamimsookoor.com
- CITIZENSHIP United States of America
- RESEARCH INTERESTS Wireless Embedded Networks, Distributed Systems, Ubiquitous Computing, Programming Interfaces, Debugging Tools, Smart Buildings, Quality of Service Trade-offs, Activity Recognition
- EDUCATION **University of Virginia**, Charlottesville, Virginia USA
Adviser: Prof. Kamin Whitehouse
Area of Study: Wireless Embedded Networks
- Ph.D., Computer Science, May 2011 (Expected)
 - Thesis Topic: Enabling Application Development for Large Scale Wireless Embedded Networks
 - M.S., Computer Science, December 2009 (Expected)
 - Thesis Topic: The Design of MDB: a Macrodebugger for Wireless Embedded Networks
- Vanderbilt University**, Nashville, Tennessee USA
- B.S., Computer Engineering, May 2006
 - *Summa cum Laude*, Honors in Engineering
 - Minor in Mathematics
- RESEARCH **University of Virginia** *Graduate Research Assistant*
- Adviser: Prof. Kamin Whitehouse **August 2006–Present**
 - Implemented MDB, the first macrodebugger for wireless embedded networks.
 - Implemented MacroLab, a macroprogramming framework for cyber-physical systems.
 - Helped deploy VineLab, the Olsson Hall wireless testbed at the University of Virginia.
 - Developed Reliance, a reliable, latency-bound routing protocol and link quality maintenance technique for cyber-physical systems.
 - Implemented an activity recognition system using a hip-mounted three-axis accelerometer and Sieve, an event classification framework developed at the University of Virginia.
 - Adviser: Prof. John Stankovic **August 2006–August 2007**
 - Helped develop, implement, and deploy LUSTER, a wireless sensor network for environmental research.

The Wireless Sensor Networks Lab *Research Intern*

Supervisor: Dr. Marco Sgroi

May–August 2008

- Implemented a gesture recognition-based computer interface using accelerometers on MicaZ motes and the Signal Processing In Node Environment (SPINE) framework.
- Collected and analyzed accelerometer and gyroscope data to identify projects that could be implemented using SPINE.
- Implemented a Matlab-based real-time visualization environment for sensor readings using SPINE.

Vanderbilt University *Undergraduate Researcher*

Advisor: Prof. Xenofon Koutsoukos

May 2005–May 2006

- Participated in the Vanderbilt Undergraduate Summer Research Program in 2005 and continued research as an independent study project the following year.
- Implemented a parking space finder service.

TEACHING

University of Virginia *Graduate Teaching Assistant*

- Computer Networks

Spring 2007

- Software Development Methods

Fall 2006**Vanderbilt University** *Tutor*

- Mathematics

2005–2006

PUBLICATIONS

Tamim Sookoor, Timothy Hnat, Pieter Hooimeijer, Westley Weimer, and Kamin Whitehouse, “Macrodebugging: Global Views of Distributed Program Execution,” in *The 7th ACM Conference on Embedded Networked Sensor Systems (Sensys 2009)*, Berkeley, CA, Nov. 2009. (acceptance ratio 17.6%)

Timothy W. Hnat, Tamim I. Sookoor, Pieter Hooimeijer, Westley Weimer, and Kamin Whitehouse, “MacroLab: A Vector-based Macroprogramming Framework for Cyber-Physical Systems,” in *The 6th ACM Conference on Embedded Networked Sensor Systems (SenSys 2008)*, Raleigh, NC, Nov. 2008. (acceptance ratio 16%)

L. Selavo, A. Wood, Q. Cao, T. Sookoor, H. Liu, A. Srinivasan, Y. Wu, W. Kang, J. Stankovic, D. Young, J. Porter, “LUSTER: Wireless Sensor Network for Environmental Research,” in *The 5th ACM Conference on Embedded Networked Sensor Systems (SenSys 2007)*, Sydney, Australia, Nov. 2007. (acceptance ratio 16.8%)

DEMOS

Timothy W. Hnat, Tamim I. Sookoor, and Kamin Whitehouse “Demo Abstract: Macrodebugging with MDB,” in *The 7th ACM Conference on Embedded Networked Sensor Systems (SenSys 2009)*, Berkeley, CA, Nov. 2009.

Tamim I. Sookoor, Timothy W. Hnat, and Kamin Whitehouse, “Demo Abstract: Programming Cyber-Physical Systems with MacroLab,” in *The 6th ACM Conference on Embedded Networked Sensor Systems (SenSys 2008)*, Raleigh, NC, Nov. 2008.

MEMBERSHIPS

Association of Computing Machinery (ACM)
 Institute of Electrical and Electronic Engineers (IEEE)
 IEEE Computer Society
 IEEE Communications Society
 ACM SIGSOFT

- CONFERENCES ATTENDED The 7th ACM Conference on Embedded Networked Sensor Systems (SenSys 2009)
International Conference on Information Processing in Sensor Networks (IPSN 2007)
The 6th ACM Conference on Embedded Networked Sensor Systems (SenSys 2008)
- REFEREEING Sixth International Conference on Networked Sensing Systems (INSS 2009)
Sixth Annual Conf. on Sensor, Mesh and Ad Hoc Comm. and Networks (SECON 2009)
Internet of Things Conference 2008
- HONORS **University of Virginia**
- SenSys'09 Student Travel Award, 2009
 - DuPont Fellowship, 2008
 - IPSN Student Travel Award, 2007
 - Graduate Research Assistantship, 2007–Present
- Vanderbilt University**
- Dean's Award for Outstanding Scholarship, 2006
 - Tau Beta Pi, National Engineering Honor Society, 2005–Present
 - Eta Kappa Nu, Electrical and Computer Engineering Honor Society, 2005–Present
 - Mortar Board, National College Senior Honor Society, 2005–Present
 - Vanderbilt Undergraduate Summer Research Program Fellowship, 2005
 - Vanderbilt School of Engineering Summer Research Program, 2005 (declined)
 - Tennessee Tech University REU in Network and Communication Systems, 2005 (declined)
- TECHNICAL SKILLS **Programming Languages:** C, C++, nesC, Java, HTML, Python, Perl, PHP, Lisp, UNIX shell scripting, SQL, SVN, Assembly, and others
- Application Programs:** Matlab, Mathematica, MS Visual Studio 6.0/.Net, Eclipse, AutoCAD, L^AT_EX, B_IB_TE_X, Microsoft Office, and other common productivity packages for Windows and Linux platforms
- Operating Systems:** Microsoft Windows XP/2000/NT, μ C/OS, TinyOS, Linux, Solaris, and other UNIX variants
- COURSEWORK **Graduate:** Computer Organization, Theory of Computation, Algorithms, From Sensors to Scientists: Applications of Sensor Networks, Sensor Networks, Applied Statistics for Engineers and Scientists, Programming Paradigms for Wireless Embedded Systems, Operating Systems, Special Topics in Wireless Sensor Networks, Applications of CPSs
- Undergraduate:** Programming Languages, Program Design and Data Structures, Principles of Operating Systems I, Computer Organization, Probability and Statistics for Engineers, Microcontrollers, Embedded Systems, Signals and Systems, Discrete Structures, Intermediate Software Design
- REFERENCES Kamin Whitehouse
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- John Stankovic
BP America Professor
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