

Sahin Cem Geyik

Contact Information

Rensselaer Polytechnic Institute
Department of Computer Science
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Research Interests

Wireless Sensor Networks, Machine Learning, Pattern Recognition, Graph Theory .

Education

Rensselaer Polytechnic Institute, Troy, New York, USA

Ph.D. Student, Computer Science, 2007 (expected graduation date: May 2012)

- Current GPA: 3.91
- Advisor: Prof. Boleslaw K. Szymanski

Bogazici University, Istanbul, Turkey

B.S., Computer Engineering, 2003 - 2007

- GPA: 3.72 (High Honor)
- Advisor: Prof. Fikret Gurgen

Research

Rensselaer Polytechnic Institute, Troy, NY, USA *Graduate Student August, 2007 - present*

Includes current Ph.D. research, Ph.D. level coursework and research projects.

Center for Pervasive Computing and Networking

- ITA Project 9: Complexity Management of Sensor Data Infrastructure.
- Root cause analysis for wireless sensor network measurements.
- Utilizing stochastic context free grammars for event recognition.
- Supervised learning assuming existence of action patterns.
- Information fusion techniques to utilize multiple sensors.

- Realization of Self Healing Routing Protocol with Preferred Path Selection.
- TinyOS programming using MicaZ sensor motes.

Professional Experience

Vestek Research&Development, Istanbul, Turkey *Intern/Research Staff July - August, 2006*

Wireless Multimedia Networking Project

- Implementation of a UPnP Multimedia Client for an embedded home multimedia system.
- Use of default UPnP libraries for networking and gstreamer libraries for multimedia handling.

Bizitek Software and Internet Technologies, Istanbul, Turkey *Intern July - August, 2005*

Implementation and Testing of a Client Service Software

- Use of C# and SQL.

Publications

1. S. C. Geyik, and B. Szymanski, **Event Recognition in Sensor Networks by Means of Grammatical Inference**, IEEE INFOCOM 2009, to appear.
2. S. C. Geyik, and B. Szymanski, **Multi-Target Tracking and Identification by a Vector of Sensors**, In Proceedings of IEEE MILCOM, San Diego Convention Center, CA, November 2008.
3. S. Geyik and B. Szymanski, **A Grammar Inference Algorithm for Event Recognition in Sensor Networks**, Proc. 2nd Annual Conference of International Technology Alliance, ACITA 2008, London, UK, September 2008, pp. 366-367.

4. B. Szymanski, C. Morrell, S. C. Geyik, and T. Babbitt, **Biologically Inspired Self Selective Routing with Preferred Path Selection**, Bio-Inspired Computing and Communication, LNCS, Springer, New York, NY, 2008.

Teaching Experience

Rensselaer Polytechnic Institute, Troy, NY, USA *Teaching Assistant Aug, 2007 - Dec, 2008*

Data Structures and Algorithms - Fall 2008

Data Structures and Algorithms - Fall 2007

Bogazici University, Istanbul, Turkey *Student Assistant Sep, 2005 - Jun, 2006*

Introduction to Computing - Spring 2006

Operating Systems - Fall 2005

Honors and Awards

Turkey Is Bank 79th year award for being one of the top 79 students in university entrance exam of Turkey (OSS Exam) (2003).

High Honor student in Bogazici University, Ranked 6th, Class of 2007.

Computer Skills

- Languages: C/C++, Java, Perl, Prolog, Scheme.
- Operating Systems: Linux, Windows, TinyOS.
- Application Programs: Matlab, MSSQL, Photoshop.

Languages

Native Turkish

Fluent English

Basic German (*Completed basic German courses*)

Extracurricular Activities

Music, cinema, basketball.

Playing drums&percussions.

References

Prof. Boleslaw K. Szymanski

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