

## Abolfazl Asudeh

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500, UTA Blvd, Engineering Research Building, Room 550  
Arlington, TX 76011  
ab.asudeh@mavs.uta.edu  
idir.uta.edu/~abolfazl  
(512) 800 5676

### EDUCATION

*Ph.D. Student*, Computer Science  
University of Texas at Arlington, 2011/12 - present  
advisors: Dr. Gergely Zruba and Dr. Chengkai Li  
GPA: 4.0/4.0;

*Master of Science*, Computer Engineering-Software  
Sharif University of Technology, Tehran, Iran, 2006 - 2008  
advisor: Dr. Ali Movaghar  
Thesis: "Analysis and Improvement of Hierarchical Routing Protocols in Wireless Sensor Networks";

*Bachelor of Science*, Computer Engineering-Software  
Sh. Sattari University, Tehran, Iran, 2002 - 2006  
Thesis: "Analysis, Design and Implementation of a Communication Website: integrated Mail, News, File-sharing and Chat";

### RESEARCH INTERESTS

*Crowdsourcing and Human Computation*  
*Large-scale Knowledge Graph and Information Retrieval*  
*Network Algorithms, Wireless Sensor Networks*  
*Design and Analysis of Algorithms*

### PUBLICATIONS

Ning Yan, Abolfazl Asudeh, Chengkai Li, *Generating Preview Tables for Entity Graphs*, submitted to WWW14.

Abolfazl Asudeh, Gergely Zruba, and Sajal K. Das, *A Generic Model for MAC protocol selection in Sensor Networks*, submitted to Pervasive and Mobile Computing Journal, 2014.

Abolfazl Asudeh and Ali Movaghar, *MEHR: Multi-hop Energy-aware Hierarchical Routing for wireless sensor networks* New Technologies, Mobility and Security, 2008, NTMS'08, IEEE, 2008.

Abolfazl Asudeh, Ali Shiralinia, and Mohammad Ghodsi, *Accessing Maximum Network Flow in Wireless Sensor Networks with Directed Antenna*, (in Persian) 13th CSI Computer Conference (CSICC'2008), Sharif University of Technology, March 9-11, 2008, Kish Island, Persian Gulf, Iran.

Abolfazl Asudeh and Ali Movaghar, *CEHR: Cluster-based Energy-aware Hierarchical Routing protocol for wireless sensor networks*, Sharif University of Technology, Technical report, 2009.

### AWARDS

Enhanced Graduate Teaching Assistant fellowship (EGTA), University of Texas at Arlington, Jan. 2012 - present.

STEM tuition fellowship, University of Texas at Arlington, Jan. 2012 - present.

### RESEARCH PROJECTS

*Crowdsourcing*

- *Crowd Consensus*: We are working on the novel problem of finding skyline/top-k objects on multidimensional data using pairwise crowd questions.
- *Missing data prediction in knowledge graph*: Considering the missing edges in knowledge graph, we use crowd for predicting the (i) existence of an edge (ii) the value of the edge.

#### *Knowledge Graph / Information Retrieval*

- *Keyword query to query graph in knowledge graph*: considering the difficulties of producing the query graph as the search input our aim is producing the query graph using the user input (keyword).
- *Preview Table for the knowledge graph*: we look for a set of tables (nodes in the graph) and attributes (edges) that summarizes a (complex) knowledge graph.

#### *Wireless Sensor Networks*

- *A generic Model for MAC protocol selection in sensor networks*: We present a scalable model for selecting a MAC protocol for WSNs based on requirements, application and the context.

### **TEACHING EXPERIENCE**

#### *Teacher Assistant, University of Texas at Arlington*

- CSE1310, Introduction to Computers and Programming, Spring 2012, Summer 2013.
- CSE5331/4331, Data Base 1, Summer 2012, Summer 2013.
- CSE5301, Data Modeling, Fall 2012, Fall 2013.
- CSE1301, Computer Literacy, Fall 2012, Spring 2013, Fall 2013.

*Instructor, Azad University, Payame Noor University, and University of Applied Science and Technology*: I have taught the following list of courses for at least one semester: Computer Networks, Principles of Algorithms, OO Programming(C++), Data Base, System Analysis and Design, Assembly Language, Principles of Network Security, Principles of Programming, Advanced Programming 1, Internet Engineering, Basics of C# Language, and Web Programming.

### **RELATED COURSES**

*Sharif University of Technology (M.Sc.)*: Network Modeling and Analysis, Advanced Algorithms, OS2, Data Mining, Software Engineering, DSS, OSD Methodologies, Database2.

*University of Texas at Arlington (Ph.D.)*: Data Modeling (CSE5301), Advanced Sensor Networks (CSE 6348), Security2 (CSE 5381), Data Mining (CSE5334), Multi-agent Systems (Game Theory) (CSE6369), Graph Data Mining (CSE 6339).

### **SKILLS**

*Programming Languages*: Assembly, C, C++, C# and a little about some other languages.

*Web Programming*: JavaScript, ASP.NET.

*Database*: SQL Server.

### **REFERENCES**

Dr. Gergely Zruba, <http://crystal.uta.edu/zaruba/>  
 Dr. Chengkai Li, <http://ranger.uta.edu/cli/>