

Sanaz Bahargam

Computer Science Department, Boston University
111 Cummington Mall, Boston, MA 02215, USA

Email: bahargam@bu.edu
Homepage: cs-people.bu.edu/bahargam
GitHub: sanazb

- RESEARCH INTERESTS ◇ Data Mining, Data Science, Applied Machine Learning, Social Network Analysis, Modeling User Behavior
- EDUCATION ◇ **Boston University** Boston, MA
Ph.D. in Computer Science Sept 2011 - May 2017
Academic Advisor: Evimaria Terzi *Research Advisor: Theodoros Lappas*
-Thesis: Machine Learning Approaches to Educational Applications
- ◇ **Shariaty University** Tehran, Iran
B.Sc. in Computer Engineering 2006-2010
-Thesis: Clustering Algorithms for Secure Routing in Wireless Sensor Networks
- RELEVANT SKILLS ◇ Strong knowledge of Data Mining, Machine Learning, Data Science, Social Analysis, and Algorithm Design
- ◇ Programming: Python, C/C++, Java, Matlab, R
- ◇ Tools and Packages: Scikit-learn, Pandas, NumPy, SciPy, GGPlot, CVX, CPLEX, TensorToolbox, Statsmodels, IPython, Scrapy, NLTK, NetworkX
- ◇ Other: MySQL, PHP, Ajax, CSS, JS, Hadoop, Weka, Latex, Git, Wireshark
Web Mining, Sentiment Analysis, Text Mining
Tensor Factorization, Survival Analysis, Item Response Theory, Discrete Choice Models
- INTERNSHIPS ◇ **Stevens Institute of Technology, Howe Business School** Hoboken, NJ
Visiting Researcher May 2016 - July 2016
- ◇ **128 Technology** Burlington, MA
Graduate Research Intern May 2015 - August 2015
- ◇ **Parse CO** Isfahan, Iran
Software Engineer Intern June 2009 - Sept 2009
- SERVICES ◇ **External Reviewer:** KDD-2017, WWW-2017, WSDM-2017, ICDM-2016, CIKM-2016, WWW-2016, INFORMS Journal on Computing (IJOC)-2016, WSDM-2016
- ◇ **Shadow PC Member:** NDSS 2014
- ◇ **Volunteer:** RecSys-2016, KDD-2016
- ◇ **Mentoring:** Konstantinos Papadopoulos, Robert Churchill, Sally Akkawi
- ◇ **Graduate Student Representative** Boston University Jan 2013 - Present
- ◇ **Interview Workshop** Boston University Fall 2015
Running a workshop to prepare students for technical interviews
- ◇ **Student Organizer for CS Open House** Boston University 2013, 2014, 2015
- PUBLICATIONS ◇ **S. Bahargam, E Papalexakis**
Discovering Time-Evolving Topics of Varying Levels of difficulty via Constrained Coupled Matrix-Tensor Factorization Submitted to *ACM SIGKDD*
- ◇ **S. Bahargam, T. Lappas, E. Terzi**
The Guided Team-Partitioning Problem: Definition, Complexity, and algorithms Submitted to *TKDE Journal*.

- ◇ **S. Bahargam, D. Erdos, A. Bestavros, E. Terzi**
Team Formation for Scheduling Educational Material in Massive Online Classes. *arXiv*
 - ◇ **B. Golshan, S. Bahargam, T. Lappas, E. Terzi**
Minimizing Faultlines in Team Formation Submitted to *TKDE Journal*
 - ◇ **S. Bahargam, T. Lappas**
Profiling the Different Types of Data Scientists: Which One is Right for You? *Winter Conference on Business Intelligence 2016*
 - ◇ **S. Bahargam, D. Erdos, A. Bestavros, E. Terzi**
Personalized Education; Solving a Group Formation and Scheduling Problem for Educational Content. *EDM 2015*
 - ◇ **R. Skowrya, S. Bahargam, A. Bestavros.**
Software-Defined IDS for Securing Embedded Mobile Devices. *IEEE HPEC 2013*
 - ◇ **S. Mirzaei, S. Bahargam, R. Skowrya, A. Kfoury, A. Bestavros.**
Using Alloy to Formally Model and Reason About an OpenFlow Network Switch. *Technical Report 2013*
 - ◇ **A. Lapets, R. Skowrya, C. Bassem, S. Bahargam, A. Bestavros, A. Kfoury.**
Towards Accessible Integrated Formal Reasoning Environments for Protocol Design. *UITP 2012*
- WORKING PAPERS
- ◇ **S. Bahargam, T. Lappas, E. Terzi**
Macro-Managed Team Formation In preparation for *ACM ICER*
 - ◇ **S. Bahargam, E Papalexakis**
Curriculum Synthesis from Online Discussions using Tensor Decomposition In preparation for *ACM ICER*
 - ◇ **S. Bahargam, T. Lappas**
Antecedents of Employee Commitment to Emerging IT Careers. Evidence from Data Science In preparation for *MISQ Journal*
- TEACHING EXPERIENCE
- ◇ **Stevens Institute of Technology, Howe Business School, Hoboken, NJ**
Instructor for Data and Web Analytics *Summer 2016*
 - ◇ **Computer Science Department, Boston University, Boston, MA**
Data Science Tools, Introduction to Algorithms, Probability in Computing, Data Structures, Fundamentals of Computing Systems, Introduction to Computer Science
Guest Lecturer, Cracking the Coding Interview workshop series *Fall 2015*
- PROJECTS AND RESEARCH EXPERIENCE
- ◇ **Data Management Lab at Boston University** Boston, USA
Research Assistant *Jan 2015 - Present*
 - ◇ Developing models for predicting how successful the discussions in online forums are”.
 - ◇ Analysing IMDB data to find communities with high impact on movies revenue.
 - ◇ Discovering cluster-based local outliers by clustering and detecting outliers at the same time given the desired cluster representatives.
 - ◇ **Network and Systems Lab at Boston University** Boston, USA
Research Assistant *Sept 2011 - December 2014*
 - ◇ *Information Leakage in Cloud Computing:* Detecting local perturbations in resource performance caused by collocated virtual machines, and classifying the aggregate co-tenant workloads
 - ◇ *Using SDN for Intrusion Detection in Mobile Embedded Devices:* Developing a new learning intrusion-detection techniques using Software-Defined Network for embedded mobile devices.
 - ◇ *OpenFlow Switch Formal Model :* Generating a model for lightweight verification of OpenFlow switches to help researchers in analysing OpenFlow switch networks properties.
- HONORS AND AWARDS
- ◇ **Research and Teaching Fellowship** *Sept 2011 - Present*
Boston University, Graduate School of Arts and Sciences.
 - ◇ Travel Award for BPDM 2016, KDD 2016, VLDB 2016, FCRC 2015, NDSS 2014, GREPSEC 2013, CRA-W 2012.
 - ◇ **1st Place** among Computer Engineering Students at Shariaty University class of 2010