

# Arian Akhavan Niaki

College of Information and Computer Sciences  
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**Research Interests** • Computer Networks, Network Measurement, Internet Measurement

<b>Education</b>	<b>University of Massachusetts Amherst,</b> MS/PhD student in Computer Science, GPA: (4/4) Advisor: Dr. Phillipa Gill	2017-Present
	<b>Stony Brook University,</b> MS/PhD student in Computer Science, GPA: (3.9/4)	2016-2017
	<b>Sharif University of Technology,</b> B.S. in Computer Engineering	2011-2016
	<b>Microsoft Certified IT Professional,</b> Shatel Academy, Studied the course on Windows Server 2008 R2	2014

## Publications

### Conference Papers

- Studying TLS Usage in Android Apps  
Abbas Razaghpanah, Arian Akhavan Niaki, Narseo Vallina-Rodriguez, Srikanth Sundaresan, Johanna Amann, and Phillipa Gill  
*Conference on emerging Networking EXperiments and Technologies (CoNEXT). Seoul/Incheon, South Korea.* Dec. 2017
- liberate (n): A library for exposing (traffic-classification) rules and avoiding them efficiently  
Fangfan Li, Abbas Razaghpanah, Arash Molavi Kakhki, Arian Akhavan Niaki, David Choffnes, Phillipa Gill, and Alan Mislove  
*Internet Measurement Conference (IMC). London, UK.* Nov. 2017

### Journal Papers

- Modeling and Evaluation of Service Composition in Commercial Multi-Clouds using Timed Colored Petri Nets  
R. Entezari-Maleki, S.E. Etesami, N. Ghorbani, A.A. Niaki, L. Sousa, and A. Movaghar,  
*IEEE Transactions on Systems, Man, and Cybernetics: Systems (Volume: PP, Issue: 99)* 2017

## Research Experience

### International Computer Science Institute (ICSI)

Supervised by Dr. Nicholas Weaver  
Worked on Estimating IoT population using DNS caches, Summer 2018

### Institute for Studies in Theoretical Physics and Mathematics (IPM)

Supervised by Dr. Reza Entezari Maleki and Prof. Ali Movaghar  
Worked on Performance Modeling and Evaluation of Web Services Using High Level Extensions of Petri Nets, Summer 2015-2016  
As my B.S. Thesis, A joint work with Ms. Negar Ghorbani

## Teaching and Working Experience

**Pishtazan Andishe Pouya,** Tehran, Iran

Dec 2016 - May 2017

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- Produced, designed and analyzed models for software information systems and web applications.

**VADA Future Communications**, Tehran, Iran 2014

- Developed several Android mobile applications
- Designed, developed, and maintained Django/Semantic-UI web applications
- Designed, developed a web crawler with Scrapy Spider

**Teaching Assistant**, Stony Brook University

- CSE 219: Computer Science III, Instructor: Ritwik Banerjee Fall 2016
- CSE 305: Principles of Database Systems, Instructor: Scott Smolka Spring 2017

**Teaching Assistant**, Sharif University of Technology

- Numerical Methods, Instructor: M.Gharib Spring 2016
- Numerical Methods, Instructor: M.Gharib Fall 2015
- Computer Networks, Instructor: H.Ajorlo Spring 2015
- Computer Simulation, Instructor: R.Entezari Maleki Spring 2015
- Engineering Probability and Statistics, Instructor: M.Jafari Fall 2014
- Fundamentals of Electrical and Electronic Circuits Spring 2014

**Projects**

**A TLS Measurement on Universities Around The US:** We measured several factors about HTTPS servers, including TLS/SSL version ,cipher suites, and certificates.

- Indexed data using Elasticsearch and written in Python. This was one of the best projects of the class.
- Project Website

**Enterprise Resource Planning System:** Analyzed, designed and implemented a desktop based Enterprise Resource Planning system.

- Using the RUP Methodology and proper UML Diagrams.
- A maintainable fully documented Object Oriented Software written in Java and the class's second best project overall.

**Hotel Reservation System:** Designed and Implemented a web based Hotel Reservation System.

- Written in Python-Django, HTML, and Javascript.
- Used MVC architecture and relational databases.
- The class's best project overall.

**Pingu Search:** Implemented a web based search engine on ResearchGate papers.

- Indexed research papers with Elasticsearch and implemented with Python/Django.
- A graphical search engine retrieving papers by title, authors, and abstract by using the PageRank algorithm.

**Secure E-Voting System:** Designed and Implemented a Secure E-Voting Protocol.

- Used Symmetric-Asymmetric Encryption.
- Used Blind RSA signature.
- Written in Java.

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**Portal for a smart classroom in Sharif University, Computer engineering department:** Design of a smart web portal for the purpose of solving the department's classrooms problems.

- Used the User-Centric-Design process and included extensive documentation and user studies.
- Written in Python-Django, HTML, and Javascript.

**iOS Development:** Varzesh3, an iOS application that parsed a popular sports site daily and showed the content to the user. Written in Swift 3.0.

### Skills

- Programming Languages: Python, Java, Matlab, C/C++(basic), Android Programming, SQL, Swift, Go, Golang
- Web Development: HTML, CSS, Javascript(JQuery), Python(Django)
- Operating Systems: Linux(Ubuntu), Windows, Macintosh, Windows Server
- Typesetting Tools: Microsoft Office, L<sup>A</sup>T<sub>E</sub>X, Google Docs
- Network Tools: Cisco Packet Tracer, Wireshark, Microsoft Exchange Server

### Activities

- Iranian Graduate Student Association at UMass 2017-Present  
Vice president