

# EMAD AGHAYI

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## RESEARCH INTERESTS

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Software engineering, developer experience design, human-computer interaction, crowdsourcing.

## EDUCATION

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**George Mason University, Fairfax, VA, USA** *Aug 2017 - Present*  
Ph.D. in Computer Science, Department of Computer Science.

**University of Tehran (UT), Tehran, Iran** *Sep 2011 - Mar 2014*  
M.Sc. in Information Technology Engineering, Department of Network Science and Technology.

**Shiraz University of Technology, Shiraz, Iran** *Sep 2005 - Jun 2010*  
B.S. in Information Technology Engineering, Department of Computer and IT.

## PROFESSIONAL EXPERIENCE

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**Software Engineering Researcher at GMU, Fairfax, VA, USA** *Aug 2017 - Present*  
Researching on how humans interact with code and design new ways to build software. Particularly, research and design on crowdsourcing and microtask programming in software engineering.

**Senior Software Engineer at ISC, Tehran, Iran** *Dec 2015 - Jul 2017*  
R&D in area of large scale software, Led development team, built a large scale financial mobile banking software.

**R&D Software Engineer at CityDI, Tehran, Iran** *Apr 2013 - Nov 2015*  
R&D in software engineering area, Led development team, built and maintained multiple software projects in financial industry like BioPay, Dandelion. They are provided with more detail in my personal web-page.

**Researcher at Network Systems Research Lab , UT, Tehran, Iran** *Sep 2011 - Feb 2017*  
Researched on wireless networks, remote health monitoring, Smart homes.

**Software Developer at Saamaneh Negar Paytakht, Tehran, Iran** *Sep 2010 - Mar 2012*  
Developed and maintained an Electronic Health Records software.

## PUBLICATIONS

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**E. Aghayi**, T. D. LaToza, P. Surendra, S. Abolghasemi "Implementing Microservices through Micro-tasks." TSE, 2019 (in proceeding).

M. Hoseini, **E. Aghayi**, F. Saghaei "A multidimensional model of knowledge sharing behavior in mobile social networks." Kybernetes, 2018.

S. Majumder, **E. Aghayi**, M. Noferesti, H. Memarzadeh-Tehran, T. Mondal, Z. Pang, M. Deen "Smart homes for elderly healthcareRecent advances and research challenges.", Sensors, 2017.

**E. Aghayi**, M. Khansari, H. Memarzadeh-Tehran "*A new back-off mechanism for the S-MAC protocol with applications in healthcare.*" International Symposium on Telecommunications, 2014.

## AWARDS AND HONORS

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Graduate Research Assistant, George Mason University, Spring 2018-present.

Volgenau School of Engineering Tuition Waiver Fall 2017, Spring 2018, Fall 2018, Spring 2019.

Graduate Teaching Assistant, George Mason University, Fall 2017.

Lecturer, Islamic Azad University, Tehran, Iran, Spring 2015.

Travel Grant to attend International Conference on Smart Sensors and Application 2015.

Travel Grant to attend International Symposium on Telecommunications, 2014.

Teaching assistant of wireless sensor network course of graduate student, University of Tehran, 2014.

Ranked top 0.16% among nearly 500,000 participants in Irans Physics and Mathematics nationwide universities entrance exam, 2005.

Ranked 3rd among more than 5,000 participants taking part in the B.Sc. entrance exam of private university in Iran, 2005.

## TECHNICAL STRENGTHS

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**Back-end:** *Advanced Knowledge of JavaSE, JavaEE, JPA, JTA, JMS, Servlet, Swing, Java Media Framework, Experience with Nodes.js, Express, Python and C#, Spring (Spring Core, Spring MVC, Spring Boot, Spring Security, Spring Data).*

**Front end:** *JSF, JSP, JavaScript, HTML, CSS, User Experience Testing.*

**Containers:** *Apache tomcat, JBoss EAP, Oracle WebLogic.*

**Web-Service:** *REST (JAX-RS, Jersey), SOAP (JAX-WS, WSDL, Axis2), Spring WS).*

**Database:** *Microsoft SQL, Oracle, MySQL, Firebase, Redis.*

**Mobile development:** *Android.*

**Cloud:** *Google Cloud Functions, Heroku Platform.*

**Test:** *Defect and Bug Discovery, Junit, Combinatorial test, Mutation testing (PIT).*

**Analyzing and Monitoring:** *SonarQube, SoapUI, JProfiler, Apache JMeter.*