Maryam Arab
Ph.D. student

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Research Area

Investigating how human computer interaction would be effective in designing programming tool and how to blend machine and human intelligence.

Exploring ways to describe programming skills more explicitly through programming strategies describe a specific sequence of steps a developer can follow to successfully finish a programming task.

We presented a novel notation for *designing a programming language* and a novel *strategy tracker tool* that explicitly represent programming strategies and frame executing strategies as a collaborative effort between human abilities to make decisions and computer abilities to structure process and persist information.

Research Interests

Software tools design and development
Human-computer interaction
Datamining

Employment

George Mason University	Jun 2018 -Present
Research Assistant	
Department of Computer Science	
	January 2017-May 2017
George Mason University	
Teacher Assistant	
Department of Computer Science	
	May 2016 – August 2016
Nexus Direct	
Intern	
Design and development of WordPress website	
Develop theme and custom fields for the website	
Old Dominion University	January 2014 – August 2016
Graduate Research Assistant	
Department of Computer Science	
Agah Information Co.	April 2013 – Jun 2014
Software Engineer	

- Design and development of "I Shop" (Java, Grails, Groovy)
- Graphic and UI Designer (HTML, jQuery)
- Website design and development (WordPress, PHP)

Aryans Arzeshpardaz Investment Consulting Co.(AAICCO)	October 2011 – April 2013
Software Developer, Network Admin	

- Designed and implemented holding software system (C#)
- Developed company's evaluation system (C#)
- Developed portfolio management system (Java, Grails, Groovy)
- Automated Test (Asp .Net)

Network Maintenance
Team Foundation Server administration
SharePoint Portal

Shayen Informatics Co.   October 2007 – November 2011
Software Developer
Design and development of "Sharif University of Technology" Card producer(C#)
Development of a Data mining project for "Bank Saderat of Iran" (Asp .net)

Education
Ph.D. in Computer Science   January 2017- Present
George Mason University
Advisor: Thomas Latoza

Master in Computer Science   August 2014 - August 2016
Old Dominion University
Thesis: Detecting On-street parking spaces using pedestrian cellphone Magnetometer internal sensor
Propose a sensor based Mobile application for detecting the curb side parking spot
Design a Mobile application to detect the street lane number in which the car is driven
Advised by Tamer Nadeem

B.S. in Electrical and Computer Engineering   August 2002-February 2007
Department of Engineering
Tehran Markaz University

Technical Skills
Platforms	Ubuntu Linux, Windows, Mac
Programming Skills	Java, Android, C#, C++, ASP.net, PHP, Groovy
Web Development	HTML, CSS, JavaScript, XML, Grails, JQuery, JSON, Spring Framework, Hibernate, Spring MVC
Software Development Methodologies	Agile, OOAD, UML
Software Development Tools	IntelliJ Idea, Eclipse, MS Visual Studio .Net, Android Studio, Team Foundation Server, SharePoint Server, Apache MAVEN, Apache ANT, CVS, SVN, JUnit, Git, Any continues integration systems (bamboo, cruise control), testing (selenium)
Database Management Systems	MySQL, MS SQL Server, Firebase

Publications
[C3] *Thomas D. LaToza, Maryam Arab, Dastyni Loksa, and Andrew J. Ko – Explicit Programming Strategies-TSE-2018(under revision)*
[C2]   Maryam Arab, Tamer Nadeem. MagnoPark - *Locating On-Street Parking Spaces Using Magnetometer-Based Pedestrians' Smartphones*. SECON 2017: 1-9
[C1]   Jing He, Dong Si, Maryam Arab. *Detection of Secondary Structures from 3D Protein Images of Medium Resolutions and its Challenges.* ICIG (2) 2015: 147-155