

Why am I interested in the field and what is my background in information security?

My bachelor's degree was in software engineering. I developed several software applications and I was always wondering about the application's safety that how this application can protect user's privacy and how to protect information from privacy violation. That is the reason I decided to study cybersecurity for my master's degree and I am pursuing a thesis on privacy in smart home. These days due to privacy violation, many users are not comfortable to use the technology and worried about their privacy. Although the technologies are developed to ease our lives, privacy implications can limit the use of technology. In my opinion privacy violation is a big issue that causes significant financial, physical and emotional damages and we have to pay more attention to this problem and try to create some technologies and tools to solve this issue. The other reason that I am so interested in cybersecurity is that I realized we have a few female researchers in computer science field, and especially in cybersecurity. Therefore, I take this as a challenge as a female to prove that female can make significant contributions in the cybersecurity field. I took some information assurance courses at North Carolina A&T State University such as information privacy and security, usable security and software security testing. I also have some experience of developing security application for projects of my courses. I also reviewed literature about the security and privacy problems and currently studying a new method for protecting privacy called differential privacy.

What type of career do I plan on pursuing?

I am interested in pursuing a career as a privacy and security expert, focusing on cyber-physical systems, and contribute to addressing the security and privacy challenges in IoT environments.

What do I expect in attending ACSAC?

My thesis studies privacy violations in smart home and seeks to develop technology to secure the smart devices used in smart homes. By attending ACSAC, I will gain more knowledge about the security privacy challenges and be familiar with different ways of protecting security and privacy. I can apply this knowledge in my thesis and create the desired tool to address privacy violations. The other reason for attending ACSAC is that I will have the opportunity to meet with other researchers, especially female researchers in this field and learn from their experiences.

Mahsa Keshavarz

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Education:

M.S.: Computer Science (Cybersecurity)

Current GPA: 3.78

North Carolina A & T State University

Expected Graduation: May 2018

B.Sc.: Computer Engineering (Software)

GPA: 3.75

Islamic Azad University Central, Tehran, Iran

Thesis: Developing Database for Shopping Center Using SQL Server

Experience:

- Graduate Research Assistant, Secure and Usable Social Media and Networks (SUSMaN) Lab, North Carolina A&T State University, Fall 2016 - Ongoing
- Developing Android Application for Creating Favorite List Using Android Studio, Spring 2017
- Android Program Developer for Computer Science department, NCAT, Fall 2016 - Spring 2017
- Developing Android Application for Calculating the GPA Using Android Studio, Fall 2016
- Developing Software For a Shopping Center using C#.Net and SQL Server, Fall 2015
- Developing Software For a Pharmacy With a Complete Backend Database and GUI , Fall 2015
- Designing a Web For Gynecologist With CC3 and HTML5, Winter Internship 2015
- Developing a Database For a Medical Center, Spring 2013
- Training the Students on C, and C++, Spring 2012

Research Papers:

- A Differential-Privacy Based Framework for Preserving Privacy in Smart Homes.
- Cybersecurity versus Information Privacy in Smart Homes, Under Review for Journal Publication.
- Creating Poster about Privacy Preservation in Smart Home Environment, Poster Presented at Graduate Research Symposium.

Courses:

- Information Privacy and Security
- Advanced Operating System
- Social Semantic Web
- Specification and Design
- Usable Security
- Principle of Computer Networking

Courses in Progress:

- Network Security
- Software Security Test
- Thesis

Skills:

Technical: Java, C/C++ (professional), Python (Familiar), Visual studio (professional), SQL (professional), C#.Net (Familiar), Linux (Ubuntu), Microsoft Windows, HTML5, CSS3, JavaScript, and Phpstorm

Language: Fluent in English and Farsi

Activities:

- Playing the Piano at the Charity Event
- Participating in Swimming Competitions in Tehran and Won one Bronze and two Gold Medals in Swimming
- Swimming Instructor