# Marzieh Bitaab

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## RESEARCH INTERESTS

My research interests are:

Applied Machine Learning

**Deep Learning** 

Cybersecurity

Natural Language Processing

#### **EDUCATION**

# Arizona State University

Spring 2020 - 2023

Tempe, AZ

PhD, Computer Science
■ 4.0/4.0 GPA

Funded by <u>SEFCOM Lab</u>

# Shiraz University

2015 - 2018

MSc, Computer Science, Cybersecurity

Shiraz, Iran

11131, Computer Stiente, Cyberseturi,
■ **4.0/4.0** GPA

Shiraz University

2011 - 2015

BSc, Computer Science, Software Engineering

**3.57/4.0** GPA

Shiraz, Iran

## **TECHNICAL SKILLS**

Skills: Data analysis using Python, PyTorch, Tensorflow, Keras, Numpy, and Scikit

**Experiences:** Matlab, Kotlin, and JAVA.

#### EXPERIENCE SUMMARY

# **Programming Competition Director**

2020-2021

Women in Computer Science at ASU (WiCS: http://wics-asu.org)

- Organized the annual WiCS programming competition
- Designed programming challenges and test cases for the programming competition
- Managed volunteers for the programming competition

Parsi GLUE 2020

Allen Institute for AI - Remote

- Participated in a project for creating benchmark datasets/models for the Persian language
- Annotated data for training NLP models for different tasks
- Programmed a crawler to collect question answering data from Persian forums automatically

# **SELECTED PROJECTS**

# **Hand Gesture Detection**

2021

- Created an Android application to detect hand gestures through the camera
- Coded a server to receive the gesture video for analysis and detection
- Designed and trained a Convolutional Neural Network (CNN) to detect hand gestures based on video frames

# Active Scam Detection Based on Social Media Data

2020

- Crawled social media websites to gather information about scam websites
- Trained a scam detection model based on social media data to detect malicious websites
- Deployed a scam detection model on Reddit website as a bot on /r/scams (about bot)

Analyzing COVID-19 related Scam Domains	2020
<ul> <li>Coded a crawler to automatically gather news, URLs, and DNS records from different sources</li> </ul>	
<ul> <li>Analyzed the collected data to find trends on COVID-related scam domains</li> </ul>	
<ul> <li>Investigated the attackers' activities during the COVID-19 pandemic</li> </ul>	
Voice-guided Grocery Shopping via Google Assistant	2019
<ul> <li>Crawled commonly used coupons website to get deals and prices on different grocery items</li> </ul>	2017
<ul> <li>Built a Google Assistant-based application to shop for groceries using voice commands</li> </ul>	
Question Tag Detection	2018
<ul> <li>Trained different machine learning models to detect Stack Overflow-like question tags</li> </ul>	
PUBLICATIONS (Google Scholar: Marzieh Bitaab - Google Scholar)	
Detecting Scam Websites at Scale	under review
Marzieh Bitaab, Haehyun Cho, Adam Oest, Rana Pourmohamad, Tiffany Bao, Ruoyu "Fish" Wang, Yan Shoshitaishvili, Adam Doupe	
ran Shoshitaishvin, Adam Doupe	
Scam Pandemic: How Attackers Exploit Public Fear through Phishing	eCrime'20
Marzieh Bitaab, Haehyun Cho, Adam Oest, Penghui Zhang, Zhibo Sun, Rana Pourmohamad,	
Doowon Kim, Tiffany Bao, Ruoyu Wang, Yan Shoshitaishvili, Adam Doupé, Gail-Joon Ahn	
	TAGI
Parsinlu: a suite of language understanding challenges for persian  Daniel Khashabi, Arman Cohan, Siamak Shakeri, Pedram Hosseini, Pouya Pezeshkpour,	TACL
Malihe Alikhani, Moin Aminnaseri, <b>Marzieh Bitaab</b> , et al.	
Hybrid Intrusion Detection: Combining Decision Tree and Gaussian Mixture Model	ISCISC'17
Marzieh Bitaab, Sattar Hashemi	
HONORS AND AWARDS	
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Grace Hopper Celebration Student Scholarship	2021
Offered in recognition of academic and technical achievements	
Invited Speaker at the FTC's PrivacyCon'21	2021
Presented the effects of the COVID-19 pandemic on the rise of malicious websites	2021
resented the effects of the 60 vib 15 pandefine on the fise of manerous websites	
Knowledge Mobilization Award Finalist	2021
Offered in recognition of extraordinary academic achievements	
Awarded WiML funding for the ICML conference registration	2020
Offered in recognition of extraordinary academic and technical achievements	
Winner of Sunhacks Hackathon	2019
Our team won the second place by building a voice-guided application for easy grocery shopping	2017
EXTRACURRICULAR ACTIVITIES	
Teacher Assistant for CSE 545	2021
Grace Hopper Celebration Privacy and Security Committee Member	2021
Reviewer at the Computer and Security Journal	2021
Teacher Assistant for CSE 365	2021
Teacher Assistant for CSE 303	2020