

Saeid Ghasemshirazi

✉ saeidghshirazi@gmail.com | 🏠 saeidshirazi.github.io | 📄 Github | 🔗 LinkedIn | 🎓 Google Scholar

EDUCATION

Carleton University

PhD in Computer Science

Ottawa, Canada

Jan. 2024 – now

- Supervised by Professor Lianying Zhao

University of Science & Technology

M.Sc. in E-commerce

Tehran, Iran

Sep. 2020 – Sep. 2023

- Supervised by Dr Mohammad Fathian
- GPA: 18.39/20
- Thesis: A Novel CNN-based Approach for Smart Contract Vulnerability Detection

Shahid Bahonar University of Kerman

B.Sc. in Computer Engineering

Kerman, Iran

Sep. 2015 – Jan. 2020

- GPA: 15.44/20
- Project: Developed a Python-based tool for automated OSINT

EXPERIENCE

CCSL - Carleton Computer Security Lab

Graduate Research Assistant

Ottawa, Canada

Jan 2024 – Present

- Leveraging machine learning techniques for IoT security audits, including threat detection and threat hunting.
- Developed a user-friendly tool for smart contract vulnerability detection using a novel CNN approach.
- Conducting a comprehensive survey on security metrics with an emphasis on reproducibility, aimed at standardizing industry practices.

DANAPCO

Back-End Developer

Kerman, Iran

Jan 2022 - Dec 2023

- Developed secure backend applications using Django, focusing on implementing best practices in web security.
- Integrated authentication and authorization mechanisms to protect sensitive data and user accounts.
- Implemented input validation and output encoding to prevent common vulnerabilities such as SQL injection and XSS.
- Conducted security audits and code reviews to identify and mitigate potential security risks.

Iran University of Science & Technology

Graduate Research Assistant

Tehran, Iran

Sep 2021 – May 2023

- Explored advanced deep learning techniques to enhance smart contract security.
- Investigated vulnerabilities and weaknesses in smart contracts, focusing on prevention and patching methods.

Barez Industrial Group

Junior Penetration Tester

Kerman, Iran

May 2020 - April 2021

- Identified and exploited a critical SQL injection vulnerability, preventing potential data breaches.
- Performed penetration tests on web apps, uncovering 20+ vulnerabilities in legacy systems.
- Collaborated with developers to patch security flaws.

InfoSecTube YouTube Channel

Cybersecurity Content Creator

Online

Sep 2019 – Present

- Created and published engaging cybersecurity-related videos, courses, and tutorials.
- Developed educational materials to enhance knowledge and skills in various cybersecurity domains.
- Engaged with a broad audience through the InfoSecTube YouTube channel [[Link](#)].

Graduate University of Advanced Technology (APA Center)

Internship

Kerman, Iran

May 2018 - Aug 2018

- Enhanced network security through research and specialized in web security using Wireshark and Burp Suite.
- Executed vulnerability scans with Nessus and Acunetix; provided detailed security reports.
- Gained proficiency in malware analysis with IDA Pro.

FEATURED PUBLICATIONS

VulnHunt-Multi-Class CNN Model for Vulnerability Detection in Smart Contracts

2024

Submitted to The 27th International Symposium on Research in Attacks, Intrusions and Defenses (RAID 2024)

[Saeid Ghasemshirazi](#), Ghazaleh Shirvani, Lianying Zhao

Enabling a Zero Trust Architecture in a 5G-enabled Smart Grid

2022

arXiv preprint arXiv:2210.01739

Mohammad Ali Alipour, [Saeid Ghasemshirazi](#), Ghazaleh Shirvani [[Link](#)]

IoT-Shield: A Novel DDoS Detection Approach for IoT-Based Devices

2021

2021 11th Smart Grid Conference (SGC)

Ghazaleh Shirvani, [Saeid Ghasemshirazi](#), Behzad Beigzadeh [[Link](#)]

Gitcbot: A novel approach for the next generation of c&c malware

2021

2021 26th International Computer Conference, Computer Society of Iran (CSICC)

[Saeid Ghasemshirazi](#), Ghazaleh Shirvani [[Link](#)]

UltraLearn: Next-Generation CyberSecurity Learning Platform

2021

2021 12th International Conference on Information and Knowledge Technology (IKT)

Saeed Raisi, [Saeid Ghasemshirazi](#), Ghazaleh Shirvani [[Link](#)]

FEATURED PROJECTS

Awesome Smart Contract Security

2023

- A curated list of Smart Contract Security Materials and Resources for Researchers [[Repository](#)]

IoT-Shield

2022

- Introducing IoT-Shield: A novel data mining technique coupled with process mining to identify misbehavior in IoT devices, facilitating threat detection across diverse protocols and platforms [[Code](#)]

Phishing Detection Application

2020

- This project, developed using Django and React Native, offers real-time phishing detection for mobile apps [[Code](#)]

Arduino Based Encryption and Decryption Module

2019

- A simple Encryption and Decryption module was Designed and Implemented with Arduino using the AES algorithm [[Code](#)]

TECHNICAL SKILLS

Languages

Python, C++, Shell Scripting, JavaScript

Tools

Burp Suite, Wireshark, Metasploit, Nmap, Sqlmap, Splunk, Nuclei, IDA Pro, Google Cloud Platform, Linux/UNIX, Docker, Git, LaTeX, PyTorch, TensorFlow

Security Techniques

Penetration Testing, Intrusion Detection, Vulnerability Assessment, Threat Hunting

Security Platforms

Cybersecurity frameworks (e.g., NIST, ISO, CIS) | Security Information and Event Management (SIEM) | OWASP Top10

Certificates

Python for Cybersecurity Specialization, Coursera, InfoSec Institute

Certified Network Security Specialist (CNSS), ICSI, International Cybersecurity Institute

Security in Google Cloud Platform, Coursera, Google

Machine Learning, Coursera, Stanford University

Enterprise System Management and Security, Coursera, University of Colorado

Detecting and Mitigating Cyber Threats and Attacks, Coursera, University of Colorado

Software Security, Coursera, University of Maryland

HONORS & AWARDS

2020 Ranked 2nd in E-commerce field among all cohorts of 2020.

2015 Ranked 2nd in IT Engineering field among all cohorts of 2015.