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 Security Consultant*  
Kerman, Iran  
May 2020 - April 2021  
- Performed security assessments to identify vulnerabilities and implement protective measures.  
- Collaborated cross-functionally to integrate security best practices into operations.  
- Monitored emerging threats and updated defense strategies accordingly.

**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**
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**
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 11th Smart Grid Conference (SGC)
Ghazaleh Shirvani, Saeid Ghasemshirazi, Behzad Beigzadeh [Link]

**Gitchbot: A novel approach for the next generation of c&c malware**
2021 26th International Computer Conference, Computer Society of Iran (CSICC)
Saeid Ghasemshirazi, Ghazaleh Shirvani [Link]

**UltraLearn: Next-Generation CyberSecurity Learning Platform**
2021 12th International Conference on Information and Knowledge Technology (IKT)
Saeed Raisi, Saeid Ghasemshirazi, Ghazaleh Shirvani [Link]

**FEATURED PROJECTS**

**Awesome Smart Contract Security**
A curated list of Smart Contract Security Materials and Resources for Researchers [Repository]

**IoT-Shield**
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**
This project, developed using Django and React Native, offers real-time phishing detection for mobile apps [Code]

**Arduino Based Encryption and Decryption Module**
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 (CNS), 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.