

Farid Zaredar

PHD STUDENT · PROGRAM

Karaj, Alborz, Iran

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Education

Sharif University of Technology

MS IN COMPUTER ENGINEERING - SECURE COMPUTING

- Advisor: Dr. Morteza Amini
- GPA: 19.30/20 | 4/4
- Class Rank: 2/15

Tehran, Iran

2022 - 2024

Zanjan University

BS IN COMPUTER ENGINEERING - SOFTWARE

- Advisor: Dr. Asghar Tajoddin
- GPA: 19.28/20 | 3.98/4
- Class Rank: 1/57

Zanjan, Iran

2018 - 2022

Shiroudi Magnet School

HIGH SCHOOL DIPLOMA IN MATHEMATICS AND PHYSICS

- GPA: 19.66/20 | 4/4
- Ranked among the top three students

Alborz, Iran

2014 - 2018

Research Interests

Security And Privacy In:

- IoT
- Network
- Operating System
- Cloud/Edge Computing
- Machine Learning & Deep Learning

Research Experience

Sharif University Of Technology - Department of Computer Engineering

SUPERVISOR: DR. MORTEZA AMINI

- MS Thesis: "Privacy Preserving Smart Metering in Smart Grids"

Tehran, Iran

Sep. 2022 - 2024

Zanjan University - Department of Electrical and Computer Engineering

SUPERVISOR: DR. ASGHAR TAJODDIN

- BS Project: "Global Cyber Security News System (GCSN)"

Zanjan, Iran

Sep. 2021 - 2022

Professional Experience

- 2022-2024 **Graduate Teaching Assistant**, Computer Engineering Department, Sharif University Of Technology
- 2022-2024 **Graduate Research Assistant**, Computer Engineering Department, Sharif University Of Technology
- 2021-2022 **Web Developer**, ponisha.ir
- 2021 **Student Internship**, Iran Kish Credit Card Corp. (Kiccc)
- 2017 **English Teacher**, Kish Way Language Institution

Teaching Experience

Fall 2024	Teaching Assistant , MOBILE DATA NETWORK - GRADUATE COURSE <i>Sharif University Of Technology</i>
Fall 2024	Teaching Assistant , ADVANCED NETWORK SECURITY - GRADUATE COURSE <i>Sharif University Of Technology</i>
Fall 2024	Teaching Assistant , COMPUTER NETWORKS - UNDERGRADUATE COURSE <i>Sharif University Of Technology</i>
Fall 2023	Teaching Assistant , DATABASE SECURITY - GRADUATE COURSE <i>Sharif University Of Technology</i>
Fall 2023	Teaching Assistant , DATABASE DESIGN - UNDERGRADUATE COURSE <i>Sharif University Of Technology</i>
Spring 2023	Teaching Assistant , DATA AND NETWORK SECURITY - UNDERGRADUATE COURSE <i>Sharif University Of Technology</i>

Technical Skills

Programming Languages

Python, C, C++, Java, Dart, nodeJS, JavaScript, HTML, CSS

Frameworks

Django, Flutter, VueJS, Tailwindcss

Databases (SQL, NoSQL, NewSQL)

PostgreSQL, MongoDB, CockroachDB

Version Control System

Git

Virtualization

Oracle VirtualBox, VMware Workstation

Project and Document Management Platform

Notion, Trello

Latex

Texlive, Textstudio, Overleaf

Reference Managers

Mendeley, Zotero

Diagramming Platform

Lucidchart

Graduate Courses

CE-40734: Database Security | 19.5/20

CE-40820: Applied Cryptography | 19.2/20

CE-40749: Hardware Security and Trust | 20/20

CE-40817: Advanced Network Security | 20/20

CE-40656 : Computer Networks Management | 19.5/20

CE-40678: Formal Method for Information Security | 16.8/20

CE-40819: Mobile Data Network | 20/20

Projects

Deployment and Packet Analysis of 4G/5G Core with Open5GS via Docker:

Deploying 4G and 5G core using Open5GS project using docker and deep analysis of packets exchanges between 4G and 5G network elements such as SGW, PGW, MME, and other important component using Wireshark.

university Of Technology, 2023

Cryptographic Systems Implementation and Vulnerability Analysis: Developed and analyzed cryptographic systems, including Elliptic Curve Cryptography and the Paillier Cryptosystem, while exploring common attacks such as fault and differential attacks .

Sharif university Of Technology, 2022

Global Cyber Security News System (GCSNS): A web-based platform built with NodeJS and VueJS that provides the latest news, podcasts, and videos related to cybersecurity. The application includes multiple features to enhance user experience and deliver content efficiently

Zanjan University, 2022

Intelligent Tourist Management (ITM): A mobile application developed in Dart using the Flutter framework. It allows users to search and reserve tours by country, view tour specifications and facilities, and make reservations. The frontend is built with Flutter, while the backend is powered by NodeJS

Zanjan University, 2021

Book Store Management System: A Python application designed to manage book purchases and inventory. Users can search for books by title, author, or publication date, evaluate them based on reviews, and complete purchases.

Zanjan University, 2021

E-Commerce Platform: A C# application that allows users to browse, add products to their cart or wish list, and make purchases. The application includes numerous features to enhance the user experience.
Zanjan University, 2020

Hospital Management System: an application developed in Java that provides essential management functionalities for hospitals and healthcare centers.
Zanjan University, 2019

Publications _____

IN PREPARATION

Privacy-Preserving Smart Metering in Smart Grids: Developing privacy-preserving techniques for smart grids, aiming to ensure privacy while supporting multiple utilities such as billing, operations, and value-added services. Three distinct privacy-preserving protocols are proposed, with plans to publish each in separate papers. Target Journal: To be decided.

Privacy-Preserving Approaches in Smart Metering and Smart Grids: A Survey: A comprehensive survey examining privacy and security challenges in smart metering and smart grid infrastructures. Target Journal: To be decided.

Language Proficiency _____

Persian: Native proficiency
English: Professional working proficiency

Honors _____

2024	Honored as a Talented Student by Sharif University Of Technology , UNIVERSITY DEPARTMENT
2024	Ranked 2nd in the Secure Computing Group at Sharif University of Technology. , SECURE COMPUTING GROUP
2022	Admitted to Sharif University of Technology as an Exceptional Talented Student for the MS Program in Computer Engineering. , SHARIF ADMISSION CENTER
2022	Honored as a Talented Student by Zanjan University , UNIVERSITY DEPARTMENT
2022	Ranked 1st in the Electrical and Computer Engineering Department at Zanjan University. , ELECTRICAL AND COMPUTER ENGINEERING DEPARTMENT

Presentations _____

Privacy-Preserving Smart Metering Protocols in Smart Grids, Farid Zaredar. 2024. An in-depth overview of privacy-preserving protocols implemented by smart meters in smart grid infrastructures. Departmental Seminar: Data and Network Security Laboratory, Computer Engineering Department, Sharif University of Technology, Azadi Ave, Tehran.

Privacy and Security Threats in Smart Grids, Farid Zaredar. 2023. A discussion on existing security and privacy challenges within smart grid infrastructures. Departmental Seminar: Data and Network Security Laboratory, Computer Engineering Department, Sharif University of Technology, Azadi Ave, Tehran.

Technical Training Programs _____

CEH (Certified Ethical Hacker): Currently Working On It

Self-study, 2024

LPIC-2: Currently Working On It

Self-study, 2024

LPIC-1:

self study, 2020

CCNA (Cisco Certified Network Associate):

Self-study, 2020

TTC (Teacher Training Course):

Kish Way Language Institution, Alborz, Iran, 2017

Workshops _____

Workshop on IoT: Participated in a workshop on IoT applications and real-world challenges.

Sharif University of Technology, Tehran, Iran, Feb 2024

Workshop on Machine Learning: Attended a workshop on foundational Machine Learning concepts.

Sharif University of Technology, Tehran, Iran, Feb 2024

Mentoring _____

2024-2025

Sharif University Of Technology , KAMYAR DARZY LARYJANY
Tehran. Iran

Professional Memberships _____

IEEE Smart Grid Community: since 2024