

## SUMMARY

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- As an undergraduate student, fueled by a passion for research in the field of security, I pursued the graduate-level Security Protocols course, authoring and presenting a detailed literature review on Multi-Verifier Zero-Knowledge proofs.
- Excelled as the Head Teaching Assistant for the 'Signals and Systems' course, which secured my selection for a research project as a Research Assistant focusing on Implementing a Semi-Supervised Person Re-Identification model with Python.
- Driven by a love for cybersecurity, I completed practical training in hacking and security and strengthened my skills through advanced CTF challenges, gaining knowledge of various security threats and vulnerabilities.

## INTERESTS

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- Cybersecurity
- Network and Information Security
- Machine Learning in Security
- Security and Privacy

## EDUCATION

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| <b>B.Sc. in Computer Engineering</b>                           | 2021 – present |
| AmirKabir University of Technology                             | Tehran, Iran   |
| • GPA: <b>3.37/4</b> (current), <b>3.87/4</b> (last two years) |                |
| <b>Diploma of Mathematics and Physics Discipline</b>           | 2018 – 2021    |
| National Organization for Development of Exceptional Talents   | Karaj, Iran    |
| • GPA: <b>18.46/20</b>   |                |

## RESEARCH EXPERIENCE

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|---|----------------|
| <b>B.Sc. project under supervision of Dr. Babak Sadeghian</b>   | 2025 – present |
| • Developing a Python implementation of the academic paper: 'Deep Hierarchical Reinforcement Agents for Automated Penetration Testing', aiming to construct a fully autonomous agent that leverages reinforcement learning to identify and exploit security vulnerabilities.          |                |
| <b>Research Assistant, Person Re-Identification Project</b>   | 2025 – present |
| • Implementing a semi-supervised person re-identification model using <b>PyTorch</b> to improve upon the accuracy of state-of-the-art models. Dr. Rahmati offered me this research position following my performance as Head Teaching Assistant for his 'Signals and Systems' course. |                |

## SELECTED COURSES

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- Security Protocols (Graduate Level Course)
- Information Security (17.8/20)
- Internet of Things (19.25/20)
- Principles of Cloud Computing (17.75/20)
- Data Mining (18.41/20)
- Computational Intelligence (17/20)

## COURSE PROJECTS

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- Authored a literature review and delivered a presentation on Non-Interactive and Efficient Zero-Knowledge Proof with a Multiple Designated-Verifier Structure for the graduate-level Security Protocols course.
- Authored a report and delivered a presentation on Cloud Computing security., Research and Technical presentation course

## TEACHING

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- Head TA of **Computer Networks**, Dr. Babak Sadeghian Spring 2024
- TA of **Electrical and Electronic Circuits**, Dr. Azim Farghadan Spring 2024, Fall 2024
- TA of **Computer Architecture**, Dr. Azim Farghadan Spring 2024
- TA of **Startup Development**, Dr. Amirhossein Roshanzamir Spring 2024
- Head TA of **Signals and Systems**, Dr. Mohammad Rahmati Fall 2024
- TA of **Principles of Database Design**, Dr. Zahra Pourbahman Fall 2024

## WORK EXPERIENCE

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**Python Developer at Daneshsazan ettelaat system** 05/2024 – 08/2024

- Developed RestAPIs to efficiently monitor employees working hours using **FastAPI**.

**Python Developer at Ettesar Yekparcheh** 08/2023 – 10/2023

- Developed various applications, such as a language learning platform and a project management tool with **FastAPI**, focusing on efficient backend design and clean coding.

## TECHNICAL SKILLS

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### Programming Languages

- **Python:** Developed a 'Kubernetes as a Service' project using **FastAPI**; Online marketplace using **Django** and **Tailwind CSS**; machine learning projects using **Pytorch**, **TensorFlow**, **Matplotlib**, and **pandas**;
- **Java:** Collaborated with a partner to develop a Discord-like application using **JavaFX** with a focus on object-orientation for the Advanced Programming course.
- **JavaScript:** Developed a weather forecasting app; practiced identifying and mitigating common web application vulnerabilities such as Cross-Site Scripting (XSS).

- **SQL & NoSQL:** Developed a chatroom with **Redis**; Implemented several projects using **MongoDB** and **PostgreSQL**; practiced solving advanced SQL injection challenges.
- **Verilog, VHDL, & Arduino:** implemented projects for the microprocessor course and IoT course, working with **FPGA**, **Arduino uno**, and **ESP8266** boards.
- **C:** implemented the Mr. Jack board game as the final project for the Fundamentals of Computer Programming.

### Operating Systems and Tools

- **Linux:** Applied command-line skills in advanced CTF challenges; adapted Linux as a personal OS.
- **Wireshark & Burpsuit:** Leveraged these tools for Computer Networks Lab and practiced with them for self-training purposes.
- **Docker & Kubernetes:** containerized many applications with Docker and practiced orchestration with Kubernetes for cloud computing projects.
- **LaTEX:** Utilized latex to write project reports and to design course homeworks.

## LANGUAGES

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- **English:** Proficient (TOEFL IBT: **112/120**)  
 Reading: **30/30**      Listening: **30/30**  
 Writing: **28/30**      Speaking: **24/30**
- **Persian:** Native

## CERTIFICATES AND ONLINE COURSES

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- Google Cybersecurity Professional Certificate (in progress)
- Practical Training in Hacking and Security (Quera College) [link](#)
- Supervised Machine learning - DeepLearning.AI (Stanford, Coursera) [link](#)

## VOLUNTEER WORK

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- Coordinated logistics and finance for the decoration of the country-wide Amirkabir Collegiate Programming Contest (ACPC).
- Assisted with the decoration and logistics for the EMIT event, the first blockchain event held by students in Iran.

## ACTIVITIES AND INTERESTS

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- **Chess:** Competed in tournaments as part of the university's chess team; Active in [chess.com](#) ([my account](#))
- Listening to Music, Watching Movies/Series