

# FARSHAD RAHIMI GHASHGHAEI

✉ Email    📞 Phone    🌐 Website    🎓 Google Scholar    🔗 LinkedIn    🐙 GitHub    🎂 18 April 2000

## Profile

- Hold a master's degree in Cyber Security, focused on quantum information science and advanced computational methods.
- Contributed to multiple projects and developed novel solutions that addressed complex challenges and achieved impactful results.
- Authored peer-reviewed articles, gaining experience in research design, data analysis, and academic writing.
- Experienced collaborator in interdisciplinary research across institutions in the United Kingdom and internationally.

## Education

**M.Sc. Cyber Security**      Jan 2023 – Jan 2024  
Birmingham City University  
**Grade:** Distinction (GPA: 4.0/4.0)  
**Supervisor:** Dr. Mehdi Yousefi

**B.Eng. Computer Engineering** Sep 2018 – Sep 2022  
Institute for Higher Education ACECR Khouzestan  
**Grade:** 13.82/20  
**Supervisor:** Dr. Jamshid Afshani

## Open Source Projects

**Quantum-Safe Password Manager**      2025–Present  
- AES-256-GCM + Argon2id with unique nonce per entry for quantum-safe password storage  
- Multiple SQLite DBs, each with its own master password, via Tkinter GUI

## Research & Publications

**Advanced Quantum Control with Ensemble Reinforcement Learning: A Case Study on the XY Spin Chain**

**Status:** Published in *IEEE Access* (2025)

**DOI:** [10.1109/ACCESS.2025.3551232](https://doi.org/10.1109/ACCESS.2025.3551232)

**Funding:** Qatar National Library

**Authors:** Farshad Rahimi Ghashghaei, Nebras Elmrabit, Ayyaz Qureshi, Adnan Akhunzada, Mehdi Yousefi

**Enhancing the Security of Classical Communication with Post-Quantum Authenticated-Encryption Schemes for the Quantum Key Distribution**

**Status:** Published in *Computers* (2024)

**DOI:** [10.3390/computers13070163](https://doi.org/10.3390/computers13070163)

**Funding:** Glasgow Caledonian University

**Authors:** Farshad Rahimi Ghashghaei, Yussuf Ahmed, Nebrase Elmrabit, Mehdi Yousefi

**Enhancing Sniffing Detection in IoT Home Wi-Fi Networks: An Ensemble Learning Approach With Network Monitoring System (NMS)**

**Status:** Published in *IEEE Access* (2024)

**DOI:** [10.1109/ACCESS.2024.3416095](https://doi.org/10.1109/ACCESS.2024.3416095)

**Funding:** Glasgow Caledonian University

**Authors:** Hyo Jung Jin, Farshad Rahimi Ghashghaei, Nebrase Elmrabit, Yussuf Ahmed, Mehdi Yousefi

## Professional Experience

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### Linux System Administrator

Nov 2020 – Dec 2022

Arya Ravesh Mahshahr Company, Iran

- Maintained and secured Linux servers, including configurations, updates, and user access.
- Monitored performance, troubleshoot issues, and provided technical support.

## Professional Activities

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### Peer Review Contributions:

*Quantum Reports*

1 review (2025) - [\[Certificate\]](#)

*Energies*

1 review (2025) - [\[Certificate\]](#)

*Journal of Computer Sciences and Informatics*

1 review (2025) - certificate available upon request

*Symmetry*

2 reviews (2024–2025) - [\[Certificate 1\]](#) - [\[Certificate 2\]](#)

## Technical Skills

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🔧 **Programming Languages:** Python, C++, MATLAB, LaTeX

📦 **Quantum Computing Libraries:** Qiskit, Cirq, PennyLane, QuTiP

🛠️ **Tools & Platforms:** Git, Docker, Jupyter, Linux, HPC Clusters

🔬 **Mathematics & Theory:** Linear Algebra, Tensor Networks, Probability & Statistics

📊 **Data Analysis & Visualization:** NumPy, SciPy, Pandas, Matplotlib, Plotly

🤝 **Research & Collaboration:** Experimental design, Simulation, Scientific Writing

🧠 **Artificial Intelligence:** Machine Learning, Deep Learning, Reinforcement Learning

## Languages

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**Persian:** Native proficiency

**English:** C1 — Advanced proficiency

## Referees

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Available upon request.