

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

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

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

🔧 **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

Persian: Native proficiency

English: C1 — Advanced proficiency

Referees

Available upon request.