

Layth Hamad

Senior AI & Data Science Innovations Manager · R&D Team Lead · PhD Candidate

• Doha, Qatar • (+974) 5042 8478 • eng.layth.h@gmail.com • linkedin.com/in/laythhamad

PROFILE

Senior AI & Data Science Innovations Manager and R&D Team Lead at **Qatar Airways Group**, with **10 years of experience** delivering applied AI, IoT, and smart-systems solutions across aviation, mobility, and smart cities. Leading AI innovation and rapid prototyping with a proven track record spanning Generative AI, Agentic AI, Large Language Models, machine learning, robotics, and edge AI. PhD candidate in Computing at Qatar University and multi-award-winning inventor, honored by the Emir of the State of Qatar for scientific excellence, dedicated to transforming emerging technologies into scalable, high-impact solutions. Granted Permanent Residency of Qatar under the category of individuals who have provided great service to the state in research and technology.

KEY SKILLS

- Generative AI & Agentic AI
- Large Language Models
- Machine Learning & Advanced Analytics
- AI Strategy & Innovation Management
- Rapid Prototyping & Proof-of-Value
- IoT & Smart City Systems Architecture
- Robotics & Autonomous Systems
- Edge AI & Embedded Systems
- Computer Vision & SLAM
- Product Management & Roadmaps
- Python, PyTorch & TensorFlow
- Stakeholder Engagement & Team Leadership

EXPERIENCE

- Senior AI & Data Science Innovations Manager - R&D Team Lead

May 2026 – Present

Qatar Airways Group · Doha, Qatar

 - Driving AI innovation and rapid prototyping in aviation by identifying high-impact opportunities, evaluating disruptive and emerging technologies, and transforming ideas into practical proof-of-value solutions.
 - Collaborating across business, technology, data, and operational teams to develop and validate solutions using Generative AI, Agentic AI, Large Language Models, machine learning, advanced analytics, and intelligent automation.
 - Accelerating experimentation and shortening the path from concept to implementation, enabling scalable AI solutions that improve aviation operations, decision-making, passenger experience, and enterprise innovation.
- AI & Data Science Manager

Aug 2025 – Apr 2026

Hamad International Airport (HIA) · Doha, Qatar

 - Supported the growth of the Data Science and AI ecosystem at Hamad International Airport by identifying high-impact use cases and developing proof-of-value solutions.
 - Enabled the adoption of advanced analytics, machine learning, Agentic AI, and Large Language Models across data, technology, and operational teams.
 - Transformed complex airport challenges into scalable AI solutions that improve decision-making, automation, efficiency, and passenger experience, while promoting responsible and practical AI adoption.

	Senior IoT R&D Systems Engineer, IoT & Smart Cities Innovations QMIC, QSTP · Doha, Qatar (Qatar Mobility Innovations Center, an independent branch of Qatar University) - Delivered IoT and smart city products from concept to nationwide deployment, owning the full lifecycle: ideation, feasibility, prototyping, field piloting, productization, and large-scale rollout. - Designed and architected end-to-end IoT systems integrating hardware, software, communications, cloud platforms, and data services. - Developed proof-of-concept and edge AI solutions using Python, PyTorch, and TensorFlow, then matured them into market-ready products with engineering, sales, and partner teams. - Defined product strategies, roadmaps, and lifecycle plans, translating market research and stakeholder feedback into deployed enhancements. - Deployed products: WaveTraf, a real-time traffic monitoring network with 650 devices designed, deployed, and currently operating on roads across Qatar; HUMIDEX, smart heat-stress monitoring protecting workers in the field; and Labeeb IoT Platform powering enterprise IoT services (Product Manager).	Oct 2019 – Jul 2025
	IoT R&D Systems Engineer QMIC, QSTP · Doha, Qatar Designed, developed, and deployed IoT and smart mobility solutions as part of the Computer Engineering R&D team.	Apr 2016 – Oct 2019
	IoT Engineer, Computer Engineering Intern QMIC, QSTP · Doha, Qatar Selected for the internship as first-place winner of the AINAC MENA Innovation Competition.	Mar 2016 – Apr 2016

EDUCATION

	PhD Candidate in Computing, Computer Engineering Qatar University, College of Engineering QRDI - Graduate Sponsorship Research Award (GSRA)	2024 – Present
	MSc in Computing, Computer Engineering - GPA 4.0/4.0 Qatar University, College of Engineering Graduated with honors in recognition of outstanding academic and research achievements, honored by His Highness Sheikh Tamim bin Hamad Al Thani, the Emir of the State of Qatar. Thesis: "Object Depth and Size Estimation Using Stereo-Vision and Integration With SLAM"	2020 – 2023
	BSc in Computer Engineering Jordan University of Science and Technology, Irbid, Jordan	2010 – 2016

HONORS & AWARDS

2025	3rd Place, Qatar Airways First IT Hackathon: for inventing a new AI-based lost-and-found system, within 60 days of joining Qatar Airways.
2024	Scientific Excellence Trophy: for academic and research achievements with honors, honored by Sheikh Tamim bin Hamad Al Thani, the Emir of the State of Qatar.
2023	2nd Place Graduate Student Award: Qatar University Creativity & Innovation Forum for Engineering Solutions Development, for inventing "Haris: An Advanced Autonomous Mobile Inspection Robot".
2021	Finalist, "Stars of Science" TV Show (Season 13): Qatar Foundation, with the invention of "MaskIt", a smart face mask tracker; the show aired on 8+ regional TV channels.
2016	3rd Place Worldwide, GIST Competition: Global Innovation through Science and Technology, Stanford University, Silicon Valley, San Francisco.
2015	First Place Award (MENA Region): Arab Innovation Network Electronic Devices Design competition, for designing the Clev-G IoT device.

2015 First Place Award, Jordan 1st Maker IoT Competition (Intel): for designing the Clev-G IoT device.

PUBLICATIONS

“Object Depth and Size Estimation Using Stereo-Vision and Integration With SLAM” · L. Hamad, M. A. Khan, A. Mohamed · IEEE Sensors Letters, 8(4), 1–4 (2024) · DOI: 10.1109/LSENS.2024.3367956

“Haris: An Advanced Autonomous Mobile Robot for Smart Parking Assistance” · L. Hamad, M. A. Khan, H. Menouar, F. Filali, A. Mohamed · IEEE International Conference on Consumer Electronics (ICCE), 1–6 (2024) · DOI: 10.1109/ICCE59016.2024.10444311

“Revolutionizing agri-food technology: Development and validation of the Portable Intelligent Oil Recognition System (PIORS)” · M. N. A. Ramadan, M. A. H. Ali, S. Y. Khoo, L. Hamad, M. Alkhedher · Elsevier, Smart Agricultural Technology, 9, 100624 (2024)

“On the Capability of LLMs in Combinatorial Optimization” · M. A. Khan, L. Hamad · Authorea Preprints (2024)

“Enhancing Autonomous Robot Perception via SLAM Coupled with AI-Driven Selective Obstacle Object Detection” · L. K. Hamad

LANGUAGES

Arabic	English
Native	Professional