HOSNA GHAHRAMANI

AI Engineer & Researcher

+98-912-237-3176

hosna.ghahramani@gmail.com

SUMMARY

AI Engineer with a strong track record in developing and deploying Machine Learning and Deep Learning solutions. Focused on transforming complex models into scalable, production-ready applications through efficient MLOps practices. Expertise includes building high-performance APIs with FastAPI, containerizing services using Docker, and architecting automated data workflows with n8n. Combines a solid background in network security with academic rigor, backed by IEEE publications. Dedicated to bridging the gap between theoretical research and robust, automated AI systems.

EDUCATION

Islamic Azad University

Ph.D. Candidate in Computer Networks |
2021 – Present GPA: 3.84/4.0 (Grade: 19.21/20)

Islamic Azad University

M.Sc. in Computer Networks | 2015 – 2017
GPA: 3.63/4.0 (Grade: 18.15/20)

SKILLS

- AI & Data Science: Deep Learning (CNNs), Machine Learning, Python Programming.
- Automation & MLOps: n8n (Workflow Automation), FastAPI (API Development), Docker (Containerization).
- Research: Expert in Photonic Crystals, IoMT Security, and Federated Learning.

CERTIFICATIONS

- Advanced Learning Algorithms (Deep Learning) Stanford Online (2024)
  Credential ID: AC8GTJ89S5SD.
- Unsupervised Learning, Reinforcement Learning, Recommenders – Stanford Online (Jun 2024)
  Credential ID: VLKCUG8BGGKR.
- Machine Learning – DeepLearning.AI (Jun 2024)
  Credential ID: HKN68BCJYJQU.
- Supervised Machine Learning: Regression & Classification Stanford Online (May 2024)
  Credential ID: LLWS94R8FJS8.
- Blockchain Security – Infosec (May 2024)
  Credential ID: 2GN9NXT7K2SU.

PROFESSIONAL EXPERIENCE

AI Engineer & Network Specialist

Academic & Industrial Projects 2021 – Present

- Anomaly Detection in Power Distribution Networks: Developed a deep learning-based monitoring system for the Kermanshah Electricity Distribution Network to identify irregular load patterns and potential faults using time-series analysis.
- Intelligent Intrusion Detection: Designed and implemented a neural network-based IDS to secure critical infrastructure, focusing on real-time threat mitigation in industrial networks.
- Workflow Automation: Built automated data synchronization pipelines using n8n to integrate legacy network logs into centralized AI monitoring dashboards.
- API Development & Deployment: Engineered and deployed predictive models as microservices using FastAPI and Docker, ensuring high availability and seamless integration with existing network hardware.

University Lecturer

Islamic Azad University & Zagros Institute 2016 – Present

- Teaching advanced courses in Software Engineering, Network Security, and Database Development for Undergraduate and Graduate programs.
- Supervising student research in Medical IoT (IoMT), Blockchain, and Machine Learning.

RESEARCH & PUBLICATIONS

IEEE Explorer

- Securing Healthcare with Deep Learning: Developed a CNN-based model for threat detection in Medical IoT (IoMT) ecosystems (2023).
- Neural Network-Driven Optimization: Applied neural networks to optimize Photonic Crystal-based all-optical NOT gate designs (2023).

Conferences & Journals

- Federated Learning & Blockchain: Conducted a comprehensive study on privacy preservation in smart healthcare systems using Federated Learning (2022).
- IoT & Blockchain Integration: Reviewed the synergy of IoT and Blockchain technologies in the healthcare industry (2022).
- Cloud Task Scheduling: Optimized task scheduling in multi-site clouds using evolutionary algorithms (2019).