

# Mohammad Niroomand

Department of Computer Engineering,  
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## RESEARCH INTERESTS

- Non-Terrestrial Network (NTN)
- 5G & 6G Networks
- Wireless and Mobile Networks
- Reinforcement Learning

## EDUCATION

### K. N. Toosi University of Technology

*M.Sc. in Computer Engineering, Minor in Computer Networks*

Sep 2024 – Current

Tehran, Iran

Courses: Advanced Computer Networks, Wireless Networks, Multimedia Networks, Performance Evaluation of Computer Systems, Network Management, Advanced Network Security, Cloud Computing, Distributed Systems

Seminar Title: The Role of Non-Terrestrial Networks (NTN) in the Expansion of 5G and Beyond.

Master's Thesis (Supervisor: Prof. Kaebeh Yaeghoobi):

- Thesis Title: Performance optimization between terrestrial 5G and LEO satellite networks using reinforcement learning.

### University of Guilan

*B.Sc. in Computer Engineering*

Sep 2019 – Jul 2024

Rasht, Iran

Notable Courses: Computer Networks (4/4), Embedded and Real-Time Systems (4/4), Special Topics 1 (Internet of Things) (4/4), Internet Engineering (4/4), Computer Architecture (4/4), Algorithms Design (4/4), Signal and Systems (4/4)

Bachelor's Project (Supervisor: Prof. Mohammad Salehi):

- Project summary: Development of a responsive web based weather client application, and leveraging AccuWeather API for real-time Weather data retrieval, forecast visualization and user centric interactive features, together with their design.
- GPA: 4/4

### Tadbir High School

*High School Diploma in Mathematics & Physics*

Sep 2018 – Sep 2019

Qazvin, Iran

- Major GPA: 4/4 (19.10/20)

## HONORS AND AWARDS

- Accepted into the Master's program at K. N. Toosi University of Technology in Tehran, **one of the top three institutes of technology** for Computer Networks and Telecommunication Systems in Iran.
- **Ranked in the top 3 %** among more than 16,000 participants in the Iranian National University Entrance Exam (Konkour) for M.Sc. of Computer Engineering, February 2024.
- **Ranked in the top 4 %** among more than 150,000 participants in the Iranian National University Entrance Exam (Konkour) for B.Sc. of Computer Engineering, July 2019.
- Received competitive job offers as **Network Specialist at the Central Bank of Iran** and **Infrastructure Engineer at MTN Irancell**.
- **National LEGO Robotics Team Member** & Qualifier for the 2015 World Robot Olympiad (WRO).
- **Full tuition waiver scholarship** - University of Guilan, 2019-2024

## ACADEMIC PROJECTS

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- **Router Queue Performance Analysis** [\[Link\]](#)

Simulated and analytically evaluated router queuing systems to analyze packet delay and loss using queuing theory.

- **Hardware Software Co-Design** [\[Link\]](#)

Design and Implementation of a 6-bit Processor with Programming Capability.

- **Embedded and Real-Time Systems** [\[Link\]](#)

Design and simulate an air conditioning system using Proteus. Measure temperature and humidity from three different points using sensors and control a heater, a cooler, and a humidifier accordingly.

- **Microprocessors and Assembly Language** [\[Link\]](#)

Design a traffic light control system at an intersection using microprocessors and assembly language. Simulate the lights in Proteus with LEDs and implement a 7-segment countdown timer.

- **Sentiment Analysis** [\[Link\]](#)

Build both traditional machine learning models (Naïve Bayes/Logistic Regression) and a TensorFlow neural network for sentiment analysis on the Amazon reviews dataset.

## TEACHING EXPERIENCE

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- **Teaching Assistant** at K. N. Toosi University of Technology

Sep 2025

- Advanced Computer Networks (Fall 2025)

*Supervisor: Prof. Kaebeh Yaeghoobi*

- Network Management (Fall 2025)

*Supervisor: Prof. Kaebeh Yaeghoobi*

- **Teaching Assistant** at University of Guilan

Sep 2019 - Jul 2024

- Embedded and Real-Time Systems (Fall 2023)

*Supervisor: Prof. Mohammad Salehi*

- Special Topic 1 - Internet of Things (Spring 2024)

*Supervisor: Prof. Mohammad Salehi*

## COURSES

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- **Sample-based Learning Methods** | [Verification](#)

Currently pursuing

*University of Alberta*

- **Fundamentals of Reinforcement Learning** | [Verification](#)

Dec 2025

*University of Alberta*

- **CISSP Certified Information Systems Security Professional** | [Verification](#)

Jul 2025

*Packt*

- **Supervised Machine Learning: Regression and Classification** | [Verification](#)

Dec 2024

*DeepLearning.AI*

- **CCNA 200-301** | [Verification](#)

Nov 2024

*Arjang Institute of Higher Education*

- **CEH (Certified Ethical Hacker)** | [Verification](#)

Apr 2024

*Maktabkhooneh*

- **LEGO Education and Advanced Robotics Training** | [Verification](#)

2014-2015

*LEGO Education Institute*

## SKILLS

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- **Programming Languages:** Python, Java, C/C++, VHDL/Verilog, Solidity

- **Developer Tools:** EVE-NG, GNS3, Cisco Packet Tracer, Paessler PRTG, Wireshark, Proteus, VS Code, Linux, PyCharm, IntelliJ, Git, Github, Slack, L<sup>A</sup>T<sub>E</sub>X

- **Web Development:** React, Bootstrap, HTML/CSS, Tailwind CSS, JavaScript, MySQL

- **English:** Professional

## PERSONAL INTERESTS

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- **Music:** Professional Piano Player
- **Volunteer Work:** Cooperation with Charitable Organizations
- **Movies & Theaters**
- **Traveling**

## REFERENCES

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- **Dr. Kaebeh Yaeghoobi** Contact: [yaeghoobi@kntu.ac.ir](mailto:yaeghoobi@kntu.ac.ir)  
Assistant Professor at K. N. Toosi University of Technology
- **Dr. Mohammad Salehi** Contact: [mohammad.salehi@guilan.ac.ir](mailto:mohammad.salehi@guilan.ac.ir)  
Dean & Assistant Professor of Computer Department at University of Guilan