

# Reza Kahidi

+98-937-1873-814 | Email  
Website | LinkedIn | Github  
Tehran, Iran

## EDUCATION

- School of Electrical and Computer Engineering, University of Tehran** Tehran, Iran  
*M.Sc. in Communication Networks* 2022 - 2025
  - Thesis Title: Service Function Chain Offloading in Mixed-Critical Scenarios
  - Supervisor: Prof. Mehdi Kargahi
  - GPA: 19.05/20 (4/4)
- Electrical and Computer Engineering Department, Jundi Shapur University of Technology** Dezful, Iran  
*B.Sc. in Electrical Engineering* 2017 - 2021
  - Thesis Title: Design and Implementation of a Real-Time Controller for Capturing Images and Writing Data to SRAM Memory in FPGA
  - Supervisor: Dr. Mohsen Shakiba
  - GPA: 17.28/20 (3.53/4)
  - Last Two Years GPA: 18.53/20 (3.96/4)

## RESEARCH INTERESTS

- Computer Networks
- Distributed Systems
- Programmable Networks
- Cloud/Edge Computing
- Machine Learning Systems

## SKILLS

- Programming Languages:** Python (NumPy, Pandas, Scikit, CVXPY, Matplotlib, Seaborn, PyTorch, Scapy, Networkx), Java, C, MATLAB, R, VHDL, Bash, LaTeX, P4
- Tools & Technologies:** Xilinx ISE, Docker(Swarm), Virtualization (VMware), Proteus, PSpice, HSpice, Arduino IDE, Mininet
- Languages:** Persian (native), English (TOEFL Score 99/120 [R:26/30, L:30/30, S:21/30, W:22/30])

## ACADEMIC EXPERIENCE

- University of Tehran**  
*Research Assistant - Prof. Mehdi Kargahi* Sep 2023 - Sep 2025
  - Activities: 1- Developed a novel placement algorithm for deploying Service Function Chains (SFC) across a data center topology. 2- Implemented a fault-tolerant state replication protocol for stateful Service Function Chains on programmable switches. 3- Designed and implemented both slack-based and criticality-based, real-time scheduling mechanisms directly in the data plane to provide low-latency guarantees for high-priority flows and critical SFCs. 4- Built and utilized a complete emulation environment with Mininet to test and verify the system's fault tolerance, scheduling accuracy, and overall performance.
  - Skills: P4, Python, Mininet
- University of Tehran**  
*Teaching Assistant - Prof. Naser Yazdani - Advanced Operating Systems* Feb 2025 - Sep 2025
- University of Tehran**  
*Teaching Assistant - Prof. Naser Yazdani - Advanced Computer Mathematics* Oct 2024 - Feb 2025
- Jundi Shapur University of Technology**  
*Research Assistant - Dr. Mohsen Shakiba* Oct 2020 - Oct 2021
  - Activities: 1- Designed a controller to capture images from an OV7670 camera module and store them in SRAM. 2- Implemented I2C communication protocol between the camera and FPGA. 3- Utilized Xilinx Spartan 6 FPGA for real-time image processing.
  - Skills: VHDL, Xilinx ISE
- Jundi Shapur University of Technology**  
*Chief Teaching Assistant - Dr. Fatemeh Molaee - Electronics II* Oct 2020 - Feb 2021

HONORS AND AWARDS

- **Awarded an Excellent Grade for the MSc Thesis Defense**

University of Tehran

Oct 2025
- **University of Tehran Support Foundation Grant for Outstanding Academic Performance**

University of Tehran

Oct 2023
- **Ranked 85th Among Approximately 20,000 Participants in MSc Entrance Exam**

Sep 2022
- **Offered Admission to MSc Program Without Entrance Exam as an Talented Student**

Jundi Shapur University of Technology

Oct 2021
- **Ranked in the Top 10 Among All Bachelors Electrical Engineering Students**

Jundi Shapur University of Technology

Oct 2021
- **Ranked 2nd Among All Bachelors Electronics Students**

Jundi Shapur University of Technology

Oct 2021

SELECTED PROJECTS

- **Network Monitoring and Analysis**

Tools: ELK(Elasticsearch, Logstash, Kibana)

Jun 2023 - Jul 2023

◦ Implemented a full-stack network monitoring and analysis solution by integrating an Intrusion Detection System (IDS) with the ELK stack for real-time threat detection.
- **Operating System**

Tools: Xv6, C

Jun 2024

◦ Developed shell scripts, multi-threaded C programs, and kernel-level features for xv6, including custom system calls and a IPC mechanism.
- **Convex Optimization**

Tools: Python, Jupyter Notebook

Feb 2024 - Jun 2024

◦ Applied convex optimization techniques to solve diverse real-world problems.
- **Java Simulation Toolkit for Queuing Networks**

Tools: Java

Jun 2023 - Jul 2023

◦ Developed utilities including a statistic collector, an event list, and an event handler to streamline the simulation of queuing networks.
- **Music Mode and Instrument Recognition using Machine Learning**

Tools: Python

Jan 2023 - Mar 2023

◦ Developed machine learning models to classify the Dastgah (musical mode) of traditional Iranian music.

SELECTED COURSES (Graduate courses are indicated by <sup>†</sup>)

• Cellular Networks <sup>†</sup>	19.5/20	• Fundamentals of Communications Systems	19/20
• Performance Evaluation of Computer Systems <sup>†</sup>	20/20	• Hardware Description Language Programming	19.4/20
• Internet Measurement <sup>†</sup>	20/20	• Digital Signal Processing	19/20
• Advanced Computer Mathematics <sup>†</sup>	18.9/20	• Microcontrollers	19/20
• Advanced Operating Systems <sup>†</sup>	19.4/20	• Digital Logic Circuits	20/20
• Machine Learning <sup>†</sup>	20/20	• Electronics II	19/20
• Convex Optimization <sup>†</sup>	18/20	• Electronics III	20/20