Amirreza **Hosseini**

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LinkedIn profile 🔗

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Education

- **Bachelor of Science** in Computer Engineering   2019-2023
  Isfahan University of Technology (IUT)
  Intelligent computer systems (tuition waived)
  CGPA: 17.60 out of 20 (converted: 3.7/4) – last year GPA 4/4
  Project title: "*Edge Computing Empowers Federated Learning in Resource-Constrained IoT Networks*"
  Supervisor: Dr. Amir Khorsandi

- **High School Diploma** in Mathematics and Physics   2015-2018
  Nokhbegan-e Tehran, Tehran, Iran

Awards and Honors

- **Accepted** directly to the master's program as an Exceptionally Talented student in computer engineering at Isfahan University of Technology (IUT), Shahid Beheshti University (SBU), and Khaje Nasir University of Technology (KNTU) without taking the entrance exam (konkour).

- **Ranked** within the top 2% among more than 150,000 participants in the annual Iranian University entrance exam for a bachelor's degree in Mathematics and Physics (Konkour).

- **Ranked** within the top 5% among more than 140,000 participants in the annual Iranian University entrance exam for a bachelor's degree in Foreign Languages (Konkour).

- **Ranked** within the top 15% in the first year and 10% in the second year of study among all students in the IUT ECE Department.

- **Awarded** an option to switch the major from Electrical Engineering to Computer Engineering based on excellent academic performance.

Selected Courses

Computer Architecture (20/20)	Data Structure (19/20)	Database & Lab (17/20)
Digital Systems Design & Lab (20/20)	Robotics & Lab (18/20)	Microprocessor & Lab (18/20)
Computer Network 1&2 & Lab (18/20)	A.P. & Lab (17/20)	Automata & Compilers (17/20)

Research Interests

Software-defined networking	Embedded Systems	Federated Learning

Professional Experiences

- **Industrial Project**

  Software Developer   Summer 2022-present
  Azmoon Saz Mabna - Part-time
  Tehran, Tehran, Iran
  Worked on implementing the website platform for automatic calibrations. For many variations of instruments in the laboratory for migration from a paper-work base to an online-based platform. Use ASP .NET Core for implementation with MVC architecture.

- **Teaching Assistant**

  Isfahan University of Technology
  - Computer Architecture   Winter 2023
    Dr. Amir Khorsandi
  - Database Lab.   Fall 2022 – Fall 2023
    Dr. Alireza Basiri (x2 semesters)

- Advanced object-oriented programming with C#   Spring 2022
  Dr. MohammadAli Khosravifard
- Digital Systems Design   Spring 2021
  Dr. Nader Karimi
- Fundamentals of programming with Python and C languages   Fall & Spring 2019-2020
  Dr. MohammadAli Khosravifard & Dr. Jalal Zahabi (x2 semesters)

Technical & Research Experiences

- **Course projects**
  - **Smart Speed Bump -** A model of the smart bump with embedded system elements that modify its height with the speed of crossing vehicles – The paper "**Intelligent Traffic Control with Smart Speed Bumps**" is under review.
  - **Arduino Radar Project** – Arduino (UNO CH340) with an ultrasonic sensor and the servo motor with buzzers and RGB for detecting the distance of objects and giving feedback with serial monitor and UI. – GitHub code

Language

- English (IELTS (Academic): To be earned on April 18th)
- Persian (Native)

Skills

Programming Languages and Frameworks

- C/C++ (multi-process and multi-threads programming, Linux kernel module) - Sololearn
- Python (PyTorch, socket programming, Pandas, NumPy, Matplotlib, Robotics) - LinkedIn Learning
- C# (ADO .NET Core MVC, windows forms, IIS Express, Message brokers (RabbitMQ)) - Sololearn
- SQL (Microsoft SQL Server, Postgresql, ADO .NET) - Sololearn
- HTML (Bootstrap 5) – CSS – Adobe XD
- Verilog - MATLAB - Assembly

Hardware systems

- ATmega 16/32, NodeMCU, STM32 (f7 & f4 & f1), Arduino (Mega/UNO)
- Sensors (Servo Motors, Drivers, Ultrasonic, Gyroscope, RFID, etc.)

Computer skills

- Editors & IDEs (Visual Studio & VSCode, Pycharm, Code Vision, Arduino, STM32CubeMX, Keil, LaTeX)
- Proteus & ModelSim & ISE
- Git & GitHub - Coursera Certification
- Wireshark & Mininet & Cisco Packet tracer & floodlight & GNS3
- Symbolab & Wolfram Alpha
- Virtual Machines & Emulators (Virtual Box and VMware, BlueStacks)
- O.S. (Windows, Ubuntu, Windows Server, Android, IOS, Alpine, CISCO)

Certificates

- Seeds for the future – Huawei – Physical certificate
- 8th Winter Seminar Series (WSS) – Sharif University of Technology – Physical certificate
- Developing Your Emotional Intelligence - LinkedIn Learning

References

- **Dr. Amir Khorsandi**
  Assistant professor, ECE Department, Isfahan University of Technology, Iran
  Website: https://khorsandi.iut.ac.ir/ -- Mail: khorsandi@iut.ac.ir
- **Dr. MohammadAli Khosravifard**
  Associate Professor, ECE Department, Isfahan University of Technology, Iran
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- **Dr. Alireza Basiri**
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