

## Education

- **Bachelor of Science** in Computer Engineering 2019-2023  
[Isfahan University of Technology](#) (IUT)  
Intelligent computer systems (tuition free)  
CGPA: 17.66 out of 20 (converted: 3.71/4) – 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

- **Invited** directly to the master’s program as an Exceptionally Talented student in computer engineering at [Amirkabir University of Technology](#) (Tehran Polytechnic), [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

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|---|-------------------------------|---------------------------------|
| ▪ Computer Architecture (20/20)         | ▪ Data Structure (19/20)      | ▪ Database & Lab. (17/20)       |
| ▪ Digital Systems Design & Lab. (20/20) | ▪ Manipulators & 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

- Computer Vision
- Embedded Systems
- Federated Learning

## Professional Experiences

- **Industrial Project**
  - **Programmer** Winter 2023 – Present  
[Sigma Gostar Arya](#) - Full-time  
*Tehran, Tehran, Iran*  
PLC programming for control system networks. HMI programming. STEP7
  - **Software Developer** Summer 2022 – Winter 2023  
[Azmoon Saz Mabna](#) - Part-time  
*Tehran, Tehran, Iran*  
Implementing the website platform for automatic calibrations. ASP .NET Core for implementation MVC.
- **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# [Dr. MohammadAli Khosravifard](#) Spring 2022
- Digital Systems Design [Dr. Nader Karimi](#) Spring 2021
- Fundamentals of programming with Python and C languages [Dr. MohammadAli Khosravifard](#) & [Dr. Jalal Zahabi](#) (x2 semesters) Fall & Spring 2019 – 2020

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## Technical & Research Experiences

- **Course projects**
  - **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](#)
  - **Computer Vision** – content-based image retargeting systems, seam carving, puzzle solvers in [my GitHub repository](#).
- **Conference Papers**
  - “[Intelligent Traffic Control with Smart Speed Bumps](#)”, The 7th International Conference on Internet of Things and Its Application (IoT 2023), University of Isfahan, Iran.

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## Language

- English IELTS (Academic): 7 (L:7.5, R:7, W:6.5, S:6)
- Persian (Native)

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## 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, GEM5)
- O.S. (Windows, Ubuntu, Windows Server, Android, IOS, Alpine, CISCO)

### Certificates

- Seeds for the future – [Iran University of Science and Technology \(IUST\)](#) – Physical certificate
- 8<sup>th</sup> Winter Seminar Series (WSS) – [Sharif University of Technology](#) – Physical certificate

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## References

- **Dr. Amir Khorsandi**  
Assistant professor, ECE Department, Isfahan University of Technology, Iran  
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- **Dr. Masoud Reza Hashemi**  
Associate Professor, ECE Department, Isfahan University of Technology, Iran  
Website: <https://hashemi.iut.ac.ir/> -- Mail: [hashemim@iut.ac.ir](mailto:hashemim@iut.ac.ir)
- **Dr. Alireza Basiri**  
Assistant professor, ECE Department, Isfahan University of Technology, Iran  
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