

Education

- **Master of Science** in Electrical Engineering 2024-Present
[University of Calgary \(UofC\)](#)
CGPA: 3.85/4
Thesis title: On-farm Prediction of Cattle Carcass Trait Using AI-based Technologies
Supervisors: Dr. Kartikeya Murari, Dr. Amin Komeili
- **Bachelor of Science** in Computer Engineering 2019-2023
[Isfahan University of Technology \(IUT\)](#)
Intelligent computer systems
CGPA: 3.71/4
Thesis title: "[Edge Computing Empowers Federated Learning in Resource-Constrained IoT Networks](#)"
Supervisor: Dr. Amir Khorsandi

Awards and Honors

- **ESE Graduate Research Award** (2025, value \$1,100) , Department of Electrical and Software Engineering, Schulich School of Engineering, University of Calgary.
- **Admitted** fully funded to the Computer Science master's program at University of Louisiana State University (LSU), Iowa State University and Saint Louis University (SLU) and PhD from university of Colorado Boulder (CU Boulder).
- **Invited** directly to the master's program as an Iranian 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](#).

Selected Courses

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|---|---------------------------|---------------------------------|
| ▪ Computer Architecture (20/20) | ▪ Data Structures (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) |
| ▪ Introduction to Biostatistics (A+) | ▪ Estimation Theory (A+) | ▪ Data Mining and ML (A-) |

Research Interests

- Computer Vision and deep learning
- Embedded Systems
- Smart Farming

Professional Experiences

- **Industrial Project**
Software Developer Summer 2022
[Azmoon Saz Mabna](#) - Part-time
Tehran, Tehran, Iran
Use ASP .NET Core for implementation with MVC architecture.
- **Teaching Assistant**
University of Calgary
 - ENER 570 - Automation and Controls (Class size:27) Winter 2025
 - ENSF 692 - Programming Fund. for Data Eng. (class size:20) Spring 2025**Isfahan University of Technology**
 - Computer Architecture (Class size: 50) Winter 2023

- Database Lab. (x2 semesters) (class size: 30)
- Advanced object-oriented programming (Class size: 15)
- Digital Systems Design (class size: 70)
- Fund. of programming with Python and C languages (class size: 80) (x2 semesters)

Fall 2022 – Fall 2023
Spring 2022
Spring 2021
Fall & Spring 2019 – 2020

Technical & Research Experiences

- **Course projects**
 - **Arduino Radar Project** — Arduino (UNO CH340) with an ultrasonic sensor and a servo motor with buzzers and RGB for detecting the distance of objects and giving feedback with a 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.
 - “A data-driven approach for extracting oxygen saturation from in-vivo fiber photometry data”, Anupam Bisht, Marzieh Omid, Amirreza Hosseini, Kartikeya Murari, Submitted and Presented.
- **Reviewer**
 - [Neurocomputing Journal](#) - Elsevier | 2023 Impact Factor: 6.0 | Cite Score: 10.8 | Q1.
 - [International Journal of Electrical Power & Energy Systems](#) - Elsevier | 2024 Impact Factor: 5.0 | Cite Score: 12.1 | Q1.
 - [Computer Standards & Interfaces - Elsevier](#) | 2024 Impact Factor: 4.1 | Cite Score: 11.9 | Q1.
 - [SGEM VIENNA GREEN](#) | Review Period: December 2024.
 - [Journal of Industrial Information Integration](#) | 2025 Impact factor: 10.4 | Cite Score: 22.3 | Q1.

Language

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

Skills

Programming Languages and Frameworks

- C/C++ (multi-process and multi-threads programming, Linux kernel module) - [Sololearn](#) - Python (PyTorch, Django, 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 – Open PLC

Hardware systems

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

Computer Skills and Platforms

- 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 & Generative AI tools
- Virtual Machines & Emulators (Virtual Box and VMware, BlueStacks, GEM5)
- 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

References

- **Dr. Kartikeya Murari**
Professor, Schulich School of Engineering, Department of Biomedical and Department of Electrical and Software Engineering
Website: <https://profiles.ucalgary.ca/kartikeya-murari> -- Mail: kmurari@ucalgary.ca
- **Dr. Amin Komeili**
Associate professor, Schulich School of Engineering, Department of Biomedical Engineering and Department of Mechanical and Manufacturing Engineering
Website: <https://profiles.ucalgary.ca/amin-komeili> -- Mail: amin.komeili@ucalgary.ca
- **Dr. Masoud Reza Hashemi**
Associate Professor, ECE Department, Isfahan University of Technology, Iran
Website: <https://hashemi.iut.ac.ir/> -- Mail: hashemim@iut.ac.ir