Melika Delafrouz Gavgani

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Education

• **B.Sc.** in Computer Engineering, Azad University North Tehran Branch
Project: Neural Network-Based Recognition of Handwritten Digits
Advisor: Dr. Masumeh Damrudi (masumehdamrudi@gmail.com)

Research Interests

• Scientific Computing

 Theoretical & Mathematical Foundations of machine learning • Data-Centric AI

• Applied Mathematics and Numerical Analysis

Trustworthy AI

AI for Social Good

Skills

• **Programming:** Python, MATLAB, C++, Bash, HTML, CSS

• ML: Keras, Pandas, Scikit-Learn, TensorFlow, NumPy, Matplotlib, SciPy, PyTorch

• Databases: MySQL, SQL Server

• Hardware: Proteus Design Suite

• Environments: VSCode, Jupyter, PyCharm, Google Colab, Spyder

• Others: Git, IBM Rational Rose, Wireshark, Cisco Paket Tracer, Apache Beam

Projects

- Designed, developed and implemented a neural network-based system for recognizing handwritten digits.
- Developed and implemented various computer networks using Cisco Paket Tracer as simulation software.
- Successfully designed and executed logical circuits and microprocessors using Proteus simulation software.
- Successfully applied software engineering principles in hypothetical projects using Rational Rose.
- Experience in using MATLAB for various projects.

Experience

Teaching Assistant, Introduction to Information Technology (IT-100), Professor Amirhossein Danishmandi, University of Applied Sciences & Technology of Karaj

Fall 2022 - Fall 2024

Selected Courses

Differential Equations	Top Mark	Signals and Systems	A+
Discrete Mathematics	Top Mark	Advanced Programming	A+
Artificial Intelligence and Expert Systems	Top Mark	MATLAB Programming Workshop	A+
Database Lab	Top Mark	Data Structures	A
Engineering Mathematics	A+	Fundamentals of Computer Programming	A
Calculus 2	A+	Object-Oriented Systems Design	A

Honors and Awards

• ICAN Gold Medal 2017

For the innovation of smart wallet, Issued by Toronto International Society of Innovation & Advanced Skills (TISIAS)

• ITEX Bronze Medal 2017

For the innovation of smart wallet, Issued by Malaysian Invention and Design Society

Tests

• IELTS Academic: 7

Test Date: June 24, 2024

Listening: 7.5Speaking: 6

Reading: 7.5Writing: 7

• GRE:

Test Date: October 31, 2024

• Quantitative Reasoning: 161 • Verbal Reasoning: 146 • Analytical Writing: 3.0

References

• Mohammad Misagh Javaherian (Hamedani) (Lab Professor)

Professor of Artificial Intelligence and Computer Science, Azad University

Email: javaherian@iau.ac.ir

Email: <u>javaherian@andisheh-samacollege.ir</u>

• Masumeh Damrudi (Project Advisor)

Assistant Professor of Computer Engineering, Azad University

Email: dr.damroudi@iau-tnb.ac.ir

• Arash Zaeim (Course Professor)

Assistant Professor & Director of Performance Evaluation and Empowerment of Azad

University

Email: <u>arash.zaeim@iau.ac.ir</u>

Email: arashzaeim@yahoo.com

• Shabnam Jazaeri (Course Professor)

Assistant Professor of Computer Engineering, Azad University

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Email: shabnam 0@yahoo.com