NAEEM EMAMDOOST

Department of Computer Science and Information Technology

Institute for Advanced Studies in Basic Sciences (IASBS) ◇ Zanjan, Iran

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RESEARCH INTEREST

- Real Time Embedded Systems
- Machine Learning
- Scheduling Algorithms
- Data Science

EDUCATION

Institute for Advanced Studies in Basic Sciences (IASBS), Zanjan, Iran *Sep 2019 - Dec 2022*

- M.Sc. in Computer Science (Artificial Intelligence)
- Overall GPA: 18.20 out of 20
- IASBS was ranked as Iran's top university in three of 36 disciplines ranked by QS

University of Guilan, Rasht, Iran *Sep 2012 - Aug 2016*

- B.Sc. in Computer Science
- Overall GPA: 15.86 out of 20

ACADEMIC EXPERIENCE

Institute for Advanced Studies in Basic Sciences (IASBS), Zanjan, Iran

Research Assistant *Sep 2019 - Dec 2022*

- **Thesis Title:** Schedulability Analysis of (m, k)-Firm Real-Time Systems
  Research on the schedulability of various real-time systems, particularly (m, k)-firm real-time systems, was conducted.
  Thesis Supervisor: Dr. Mahmoud Shirazi
- **Seminar Title:** Diagnosis of COVID-19 *Dec 2020 - Apr 2021*
  Role: Researcher & Code Developer
  Head of Research Team: Dr. Mahdi Bohlouli

Teaching Assistant

- Real-Time Embedded Systems (Spring 2021, Graduate Course)
- Parallel Algorithms (Winter 2022, Graduate Course)
- Real-Time Embedded Systems (Winter 2023, Graduate Course)

Ghalamchi Institute, Rasht, Iran *Sep 2012 - Aug 2016*

- Instructed pre-university students in mathematics and physics courses for a national university entrance exam

University of Guilan, Rasht, Iran *Sep 2012 - Aug 2016*

- **Thesis Title:** The Theory of Regular Languages and Automata
  Thesis Supervisor: Dr. Hashem Saberi Najafi

PUBLICATION(S)

- Naeem Emamdoost and Mahmoud Shirazi. "Improving the Schedulability of (m, k)-Firm Real-Time Systems" *in Journal of Sustainable Computing: Informatics and Systems (submitted)*

PROFESSIONAL EXPERIENCE

Research & Teaching Assistant   *Dec 2022 - present*

- I worked at Dr. Mahmoud Shirazi's Laboratory in the Department of Computer Science and Information Technology at IASBS, where I researched the schedulability of real-time embedded systems. I also assisted my lab mates with their research projects, and I taught real-time embedded systems course to master's students
- Improved the schedulability of (m, k)-firm real-time systems by proposing an algorithm

Member of the Cyber-Physical Systems Society of Iran (CPSSI)   *Nov 2021 - present*

- Collaborated with other CPS experts, scientists, and students on research projects that explored the application of CPS in various domains, such as aerospace, automotive, healthcare, and transportation

- Volunteered as a mentor for CPS undergraduate and graduate students, providing guidance and support for their academic and research endeavors

SKILLS

Computer Programming Languages	Python, Matlab, C++
Databases	MySQL, SQL Server
Optimization Techniques	Fuzzy Logic (FL), Genetic Algorithm
Other	Machine Learning Algorithms

SELECTED COURSES & CERTIFICATES

- Real-Time Embedded Systems, Grade: 20 out of 20, Department of Computer Science and Information Technology, IASBS, Iran
- Expert Systems, Grade: 20 out of 20, Department of Computer Science and Information Technology, IASBS, Iran
- Advanced Data Mining, Grade: 17 out of 20, Department of Computer Science and Information Technology, IASBS, Iran
- Advanced Database, Grade: 20 out of 20, Department of Computer Science and Information Technology, IASBS, Iran
- Machine Learning Course with Amir 'Jadi' Mirmirani, Iran
- Machine Learning and Deep Neural Networks Course with Ali Sharifi-Zarchi, Department of Computer Engineering, Sharif University of Technology, Iran
- Feature Selection and Feature Extraction, Grade: 17.50 out of 20, Department of Computer Science and Information Technology, IASBS, Iran
- Advanced LaTeX Course, Self-Study

SELECTED IMPLEMENTED PROJECTS

- Simulation of real-time systems scheduling algorithms (EDF, DM, RM, and PFP_{ASAP}) and their schedulability tests (Python and C++)
- Diagnosis of the eye's glaucoma (MATLAB)
- Predict breast cancer in women (Python)
- Predict prostate cancer in men and selecting the most relevant features (Python)

AWARD(S) & HONOR(S)

- Ranked among the top 3 students in the M.Sc. in computer science at IASBS, Zanjan, Iran, 2019 - 2022
- The master's thesis received A+ grades

REFERENCES

Dr. Mahmoud Shirazi, Department of Computer Science and Information Technology, IASBS, m.shirazi@iasbs.ac.ir

Dr. Mansour Davoodi Monfared, Department of Computer Science and Information Technology, IASBS, mdmonfared@iasbs.ac.ir

Dr. Mohammad Reza Faraji, Department of Computer Science and Information Technology, IASBS and Utah State University, m.faraji@iasbs.ac.ir