Mostafa Nesaeian

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Iran, Tehran

RESEARCH INTERESTS

- Machine Learning
- Control Theory
- Applied Mathematics
- Optimization

EDUCATION

Amirkabir University of Technology (Thehran Polytechnic)
Bachelor of Science, Electrical Engineering: 2020 - present
- GPA: 16.7/20 - 3.55/4 Total: 140 credits

National Organization for Development of Exceptional Talents (Sampad)
High School Diploma, Mathematics and Physics: 2014 - 2020
- GPA: 19.68/20 - 3.96/4

RESEARCH EXPERIENCE

Research Assistant at Computational Intelligence Lab
School of Electrical Engineering, Amirkabir University of Technology
part-time Sep 2023 - Present
- Researching State Estimation methods under supervision of Dr. Farzaneh Abdollahi

Research Assistant at Digital Unit Lab
RIPI
part-time Mar 2024 - Present
- Researching on Neural network based MPC under supervision of Dr. S. Vahid Naghavi

Bachelor Thesis: State Estimation Fall 2024
- State Estimation

PUBLICATION

- Ali Izadi, **Systematic Review of Causal Discovery using Continuous Optimization. Reformulating causal discovery as a graph matching problem.**, 2022, Conducted as a systematic review for my seminar course in artificial intelligence and also proposed a new reformulation of linear causal discovery.

TEACHING

- **Calculus 2: Teaching Assistant** Jan - Jun 2023
Amirkabir University of Technology

HONORS AND AWARDS

- Ranked 550 in the National University Entrance Exam among 160,000 students.

WORK EXPERIENCE

Summer Internship : Fater Afkar Fanavar Jul 2023 - Aug 2023
- Designing controllers via python (OpenOPC module) for pilot plant.
- Instrumentation, Simulating and processing sensors.
- Image processing. (Link)

Image Processing: Fater Afkar Fanavar Part-time Sep 2018 - Dec 2020
- Working on deepface model, Vgg16 for image processing.
- Working on face vectorizing using mathematical methods with implementation.

Ai Researcher: Research Institute of Petroleum Industry (RIPI) Part-time Sep 2018 - Dec 2020
- Designing and developing intuitive and responsive front-end interfaces for web application using React.

- Validation, evaluation and help for backend project.
- Conducted research and development for image processing, utilizing advanced neural network architectures to create models for object detection and recognition

PROJECTS

computation intelligence
modern control
VHDL
MPC
Self project

SKILLS

- Programming Languages: Python, R, C, C++, Java
- Database Technologies: SQL, MongoDB, NoSQL, GraphDB
- Other Technologies: TensorFlow, Keras, Flask, Docker, Git, React, Jupyter

ADDITIONAL INFORMATION

- Languages: Fluent in English and Persian. a bit french.
- Interests: Data Analysis, Optimization and applied mathematics.