SINA QAHREMANI

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RESEARCH INTERESTS

My main research interests are:

- Machine Learning And Deep Learning
- Robotics
- Uncertainty in Deep Neural Networks
- Decentralized Control
- Deep Reinforcement Learning
- Meta Learning

EDUCATION

- **PhD,** *(Sep 2023 - present)*: Electrical Engineering, Department of Electrical and Computer Engineering, Queen's University, Kingston, ON, Canada

- **MSc,** *(Sep 2018 - Aug 2021)*: Electrical Engineering (Control Systems), Department of Electrical Engineering, Sharif University of Technology (*Sharif*), Tehran, Iran,
  GPA: 3.5/4.0,
  Thesis: **Data-driven Methods for Cooperative Control of Wheeled Mobile Robots (Deep Reinforcement Learning Method)**

- **BSc,** *(Sep 2013 - Aug 2018)*: Electrical Engineering (Control Systems), Department of Electrical Engineering, Hamedan University of Technology (*HUT*), Hamedan, Iran,
  GPA: 3.4/4.0,
  Bachelor's Project: **Establishing the Raspberry Pi Connection with MATLAB Software to Implement the Quadrotor Set Controller using ROS**

PUBLICATIONS

- M. Abdar, S. Salari*, S. Qahremani*, H. K. Lam, F. Karray, S. Hussain, A. Khosravi, U. R. Acharya, V.Makarenkov, S. Nahavandi, **UncertaintyFuseNet : Robust uncertainty-aware hierarchical feature fusion model with Ensemble Monte Carlo Dropout for COVID-19 detection**, Information Fusion, Sep 2022, DOI: 10.1016/j.inffus.2022.09.023
  * These authors contributed equally to this work.

SKILLS

- **Programming Languages:**
  Python (pytorch, tensorflow, sklearn, numpy, matplotlib, pandas, django), C, C++, JS (nodeJS, nestJS, typescript), SQL

- **Professional Softwares:**
  Anaconda (Spyder, Jupyter Notebook), Pycharm, webstorm, Matlab and Simulink, VS Code, ROS (Robot Operating System)

- **Hardware and Embedded Systems:**
  Raspberry Pi, Arduino, AVR, APM (Flight Controller), PXFMini (Flight Controller Shield for Raspberry Pi)

- **OS/VCS/Services:**
  Linux (Ubuntu), Git, Docker, Kafka, Redis

- **Other:**
  Joomla, Wordpress, HTML, CSS

WORK EXPERIENCES

- **Backend Developer (Django, NestJS)**, Hamrah Academy, Tehran, Iran, April 2023 - September 2023

- **AI and Data Scientist, Backend Developer (Django, NestJS)**, Dorfak, Tehran, Iran, July 2021 - April 2023

- **Leading AI and backend Team**, Мapno, Tehran, Iran, Jan 2020 - Jun 2021

- **Leading Backend Team**, Мapno, Tehran, Iran, Jan 2019 - Jan 2020

- **Instrumentation Internship**, Mahabad Petrochemical Company, Mahabad, Iran, July 2016 - September 2016

PROFESSIONAL ACTIVITIES

- **Reviewer for "Neural Processing Letters" Journal**, Springer Nature, Dec 2021

- **Research consultant for "Formulation and Design ML method to predict cancer treatment effects"**, Nano Bioelectronics Devices Lab, Cancer Electronics Research Group, University of Tehran, Oct 2021

- **Speaker of "Roadmap to Artificial Intelligence And Deep Learning" keynote**, IEEE, HUT, Hamedan, Iran, Dec 2020

- **Speaker of "Deep Learning and its applications" keynote**, HUT, Hamedan, Iran, May 2019

- **Speaker of "Image processing with MATLAB and Raspberry Pi" workshop**, HUT, Hamedan, Iran, April 2018

- **Referee of "Youth demo of FIRACUP 2019"** , Amirkabir University of Technology, Tehran, Iran, March 2019

- **Head of Electrical and Electronics Engineering Association (EEEA)**, HUT, Hamedan, Iran, 2015 - 2016

TEACHING EXPERIENCES

- **Workshops and Courses:**
  - **Lecturer of "Introduction to Python, a data science approach" workshop**, IEEE, HUT, Spring 2021.
  - **Lecturer of Matlab Software**, HUT, Hamedan, Iran, Spring 2016, 2017, Fall 2017, 2018

- **Teaching Assistant at Sharif:**
  - **Deep Learning**, Instructor: Dr. Mahdie Soleymani, Spring 2020
  - **Deep Learning**, Instructor: Dr. Emadaddin Fatemizadeh, Fall 2019
  - **Robot Control 1**, Instructor: Dr. Mehrzad Namvar, Fall 2019

- **Teaching Assistant at HUT:**
  - **Linear Control Systems**, Instructor: Dr. Mahdi Khodabandeh, Fall 2017
  - **Computer Programming**, Instructor: Ms. Tayyebeh Hosseini, Spring 2017
  - **Signal and Systems**, Instructor: Mr. Mehdi Seifi, Fall 2016
  - **Engineering Mathematics**, Instructor: Dr. Adel Mohammadi, Fall 2015

MEMBERSHIP

- **Student Member of IEEE**, Apr 2015 - Apr 2020
- **Member of IEEE Robotics and Automation Society**, Jan 2018 - Jan 2019

LANGUAGES

- **English**: Full Professional proficiency
  - **TOEFL iBT: 95/120** (Reading: 24, Listening: 28, Speaking: 21, Writing: 22)
- **Kurdish**: Mother Tongue
- **Persian**: Second Language