

Research Interests

Reinforcement Learning, Deep Learning, AI, Robotics, Human-Robot Interaction

Education

K. N. Toosi University of Technology

Sep 2019 - Jan 2022 [expected]

M.Sc. in Mechanical Engineering, Dynamics and Control

Overall GPA: 17.87/20

Thesis:

Shahid Beheshti University

Sep 2015 - Oct 2019

B.Sc. in Mechanical Engineering

Overall GPA: 17.58/20

Thesis: Bearing Fault Diagnosis and Signal Feature Selection by ANN and SVM

Farzanegan High School, National Organization for Development of Exceptional Talents (NODET)

May 2011 - May 2015

Diploma in Mathematics and Physics

Total GPA: 19.49/20

Experiences

Research Assistant

Feb 2020 - Jan 2022

Advanced Robotics and Automated Systems (ARAS) Laboratory

Prof. S.A.A. Moosavian

Thesis:

Teaching Assistant

Oct 2020 - Jul 2021

Teaching assistant of *Control in Robotics*, Prof. S. A. A. Moosavian

Teaching assistant of *Dynamics*, Prof. S. A. A. Moosavian

Teaching assistant of *Advanced Engineering Mathematics*, Dr. S. H. Sadati

Section Leader, Code in Place

April - May 2021

Member of the teaching team for Code In Place, Stanford University

(This online course was offered by Stanford University during the COVID-19 pandemic. It brought together 12,000 students and 1100 volunteer teachers participating from around the world. The course is a 6-week introduction to Python programming using materials from the first half of Stanford's CS106A course. As a volunteer section leader, I prepared and taught a weekly discussion section of 8-10 students to supplement professors' lectures.)

Summer Intern

April - May 2021

Social & Cognitive Research Robotics Laboratory, Sharif University of Technology

Dr. V. Fakhari

Selected Honors & Awards

Ranked 1st out of students of Control Systems in MSc degree (Department of Mechanical Engineering, KNTU)

Exempted from the entrance examination and tuition to pursue graduate studies at the K. N. Toosi University of Technology (in recognition of excellent academic performance).

Ranked 5th GPA among the graduating class of 2014 in the bachelor program at Shahid Beheshti University

Ranked within the top 0.6% among almost 200,000 participants in Iranian University Entrance Exam in mathematical sciences field for undergraduate program

Selected Projects

3RPS Parallel Manipulator kinematics, dynamical modeling, and motion/force control by MSC Adams and Matlab, (Parallel Robots course project, Prof. Hamid D. Taghirad)

AL5B Serial Manipulator kinematics, dynamical modeling, and motion/force control by Matlab, (Control in Robotics course project, Prof. S. A. A. Moosavian)

Designing a Fuzzy Logic Controller for Car Parallel Parking by MATLAB Simulink, (Fuzzy Logic and Fuzzy Artificial Neural Network Control course project, Prof. Ali Ghaffari)

Car Price Prediction via Linear Regression, SVM, KNN and ANN by Matlab, (Machine Learning course project, Dr. Babak Nasersharif)

Deep Neural Network for Image Classification, (Neural Networks and Deep Learning online course project, Coursera, Andrew Ng)

The Brick Breaker Game by Python, (CS106A project, Code in place 2020, C. Piech & M. Sahami)

Design and Implementation of an Object Avoidance and Path Planning Algorithm for TurtleBot3 in ROS(ROS & Gazebo training online course project, Maktabkhoone)

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Skills & Expertise

Python, MATLAB, JavaScript

Latex, Microsoft Word, Microsoft PowerPoint, Photoshop, HTML, CSS

SOLIDWORKS, LabVIEW,

ROS, Gazebo simulator, TensorFlow,

Git, Shell? , Unix

Publications

Tavakoli E, Ibrahimi F, Alipanah A, Delrobaei M. A Novel Intelligent Parallel Parking System Based on Fuzzy Logic Without Using Sensor. In 2020 6th Iranian Conference on Signal Processing and Intelligent Systems (ICSPIS) 2020 Dec 23 (pp. 1-5). IEEE.

Kouzehkanan ZM, Tavakoli E, Alipanah A. Easy-GT: Open-Source Software to Facilitate Making the Ground Truth for White Blood Cells Nucleus. arXiv preprint arXiv:2101.11654. 2021 Jan 27.

Languages

English: Proficient

(Nov. 2018)TOEFL iBT Score: 99 (Reading 23, Listening 28, Speaking 27, Writing 21)

(Dec 2018)GRE General Score: 317 (Quant 165 , Verbal: 152)

French: Elementary

Other Activities

Most of my free time is dedicated to reading books and reviewing them ([My Goodreads](#))

Besides that, I climb mountains professionally (IRAN IMSCF member)

References

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S. Hossein Sadati

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