Saeid Shahedi

Yazd, Iran
+98 (913) 098-4523
Saeidshahedi.com
shahedisaeid80@gmail.com
linkedin.com/in/saeidshahedi

Summary

- Passionate about multi-agent systems, designed a distributed controller for quadcopters with load drop analysis.
- Led a team to develop a 98% accurate license plate recognition system using Deep Learning.
- Skilled in problem-solving, teamwork, and Agile project management.

Education

B.Sc. in Mechanical Engineering, Isfahan University of Technology, Iran   2019 - 2024
Project Topic: Implementation of Obstacle Detection for Robot Path Planning using Sensor Data
Supervisor: Dr.Mohammad Danesh

Research Interests

- Robotics
- Autonomous Systems
- Multi-agent System

- Medical Robotics
- Biomechatronics
- Dynamics and Vibration

Research Experience

Design of a Distributed Controller for a Multi-Agent System of Quadcopters Carrying a Suspended Rigid Plate and Analysis of Load Drop on the Plate

Developed a multi-quadcopter system to control impact forces on a rigid load plate using LQR controllers, ensuring stability during impacts. (Manuscript in preparation)

Dynamic Modelling and Robust Exponential Control of a Variable Mass Underwater Vehicle

Developed a sliding mode control approach incorporating an exponential function to reduce chattering and ensure stability under uncertain conditions. Validated on a 6 DOF AUV. (Manuscript in preparation)

Research Internship (University of L'Aquila, Italy)   July 2022 - September 2022
- Gained expertise in numerical modeling with Octave.
- Acquired knowledge in advanced mathematical modeling.
- Applied variational principles and damage mechanics to analyze masonry structures.

Work Experience

Junior Mechanical Engineer   November 2022 - Present

Pooyandegan Pezeshki Pardis
- Gained experience with Tensile and Fatigue testing machines for material evaluation.
- Developed quality assurance skills aligned with medical device standards.
- Collaborated on prosthetic prototyping and testing for functionality and safety.
- Worked with CNC machines, including programming and operation.

Online Courses & Certificates

- Machine Learning Specialization (Coursera)
- Deep Learning Specialization (Coursera)
- Modern Robotics: Mechanics, Planning, and Control Specialization (Coursera)
- ROS2 for Beginners (Udemy)

English & GRE Tests

IELTS (Academic): 7.5 (overall score)	GRE General Test: 310 (overall score)
Listening: 8.5, Writing: 6.5	Quant Reasoning: 167
Speaking: 7.0, Reading: 7.0	Verbal Reasoning: 143
Test date: 06/24/2024	Analytical Writing : 3
	Test date: 11/11/2024

Computer Skills

- **Programming Languages:**
  Matlab, Python
- **Design, Simulation, and Automation:**
  Solidworks, Abaqus, ROS, Gazebo, PLC
- **Machine Learning Models and Algorithms:**
  PINNs, RNNs, CNNs
- **Academic Writing Tools:**
  Overleaf, LaTeX, EndNote

Hobbies

Volleyball, Community Volunteering, Website Design, DIY Projects

References

Mohammad Reza Forouzan	Mohammad Danesh
Professor, Department of Mechanical Engineering	Associate Professor, Department of Mechanical Engineering
Isfahan University of Technology, Isfahan, Iran	Isfahan University of Technology, Isfahan, Iran
Email: forouzan@iut.ac.ir	Email: danesh@iut.ac.ir