

# Seyed Reza Mirbagheri

## Mechanical Engineer

Faculty of Mechatronic Engineering,  
Department of Mechanical Engineering,  
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## Education

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2013 – 2018:

### BSc in Mechanical Engineering

Islamic Azad University, Karaj, Iran

(Ranked 2<sup>nd</sup> best university in Iran based on [USnews](#))

**Thesis:** Water tank level control using LPV (Linear Parameter Varying)  
implementation with MATLAB

**Supervisor:** Dr. Abolfath Nikranjbar

## Research Interests

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- Intelligent Control and Optimization using AI, Machine Learning
- Robotic Modeling and Control
- IOT and Electronic Boards and Devices
- 3D Printing Technology
- Unmanned Systems (UAVs)
- Drones and Quadcopter Control System

## Skills

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- **Programming Language:** MATLAB, Python, C#, C++
- **Web Programming:** HTML, CSS, JavaScript, jQuery, Asp.net MVC, Django (Learning)
- **Software:** Simulink (Learning), PVsyst (Solar Panels) – MESHMIXER (3D printing)
- **Computer-aided Design (CAD):** CATIA
- **Machine Learning:** Python (NumPy – Pandas) (Learning)
- **Microcontroller and Microprocessor:** Arduino (Learning) - Raspberry Pi (Learning)

## Certificates

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- **Machine Learning Summer School:** 2021  
NTU (National Taiwan University)
- **Machine Learning with Python:** 2021  
IBM (Coursera)
- **Speak English Professionally: In Person, Online & On the Phone:** 2021  
Georgia Institute of Technology (Coursera)
- **Getting Started with Essay Writing:** 2021

UCI (Division of Continuing Education) (Coursera)

- **Photovoltaic Systems Designer (Renewable & Alternative Energies Technology):** 07/2019  
Iran Technical and Vocational Training Organization
- **Complex & Freeform surfaces using CATIA Software (Advanced):** 06/2019  
Iran Technical and Vocational Training Organization
- **Rapid Prototyping with 3D printing method:** 01/2019  
Iran Technical and Vocational Training Organization
- **Hydrodynamic Power Transmission System Repairman:** 10/2018  
Iran Technical and Vocational Training Organization
- **CATIA Operator:** 08/2018  
Iran Technical and Vocational Training Organization
- **NANO Technology General Training:** 2013  
Chamran Nanotechnology Research Center

## Research Projects

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- Design, Analyses, and Prototype rehabilitation instruments by CATIA, MESHMIXER software, and 3D printer to help people who can't use their hands to pick up cups, spoon, fork, cellphone, and variety of different products.
- Design an Off-grid and On-grid solar farm using PVsyst software.

## Work Experience

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09/2019 – 06-2020	<b>As a Teacher in Middle and High School (Grade 7 to 9)</b>
11/2018 – 01/2019	<b>Photovoltaic Systems Designer Intern</b>
09/2018 - 11/2018	<b>Rapid Prototyping with 3D printing method Intern</b>
09/2018 - 11/2018	<b>Complex &amp; Freeform surfaces using CATIA Software Intern</b>
08/2018 – 10/2018	<b>Hydrodynamic Power Transmission System Intern</b>
06/2018 – 08-2018	<b>CATIA Operator Intern</b>
06/2017 – 06/2018:	<b>As an Educational Counselor (sophomore students) at Ghalamchi Cultural Education Center</b>

## Language & Test Scores

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- **English:** IELTS Mock test 6 in 16-02-2022- Test will be taken in 31<sup>th</sup> March 2022
- **Korean:** Pre-Intermediate
- **Persian:** Native

## Hobbies

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- Martial arts, Mountaineering, Music, Gardening, Tools making

## References

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Dr. Abolfath Nikranjbar, Associate Professor

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