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CONTACT

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(+39) 3518225107

Birth: 7/22/1999

EDUCATION

M.Sc. in Robotics Engineering - University of Genoa, Italy 2023 - 2025 (expected)

Focus on mechanical design, control systems and intelligent robotic mechanisms.

Thesis: "Train and humanization of emotions and perception for robots."

B.Sc. in Mechanical Engineering (Automatic Control) - Arak University of Technology, Iran 2019 – 2023

Thesis: "Design and Construction of a Robotic Arm with Gripper for Moving Objects."

MAHNAZ (ALFA) MOHAMMADKARIMI

WORK EXPERIENCE

Mechanical & Product Designer: Arian Robot Company Arak, Iran (2020–2022) Lead the mechanical design and oversee an industrial 2Dof metal bar cutting machine from concept to delivery.

Designed mechanical assemblies using SolidWorks, CATIA, and Creo, integrating manufacturability and assembly constraints.

Collaborated with cross functional teams (electrical, manufacturing) to ensure product reliability and production readiness.

Applied Design for Manufacturing (DFM) and tolerance analysis principles to increase accuracy and reduce rework time by up to 25%.

Supported prototype development and validation of mechanical subsystems, improving system performance and durability.

Projects and Achievements

Robotic Arm "ARIAMA" - Design and implementation of a robotic arm for educational and industrial applications.

Integrated Robotic Design with Artificial Intelligence - Exploring the use of Python and machine learning models for intelligent motion control.

Winning, Line Pursuit and Chemical Machine Competitions (2016-2017). Design and construction of an industrial cutting machine (2022).

4th place, National Fish Farming Systems Research Competition (2021).

MEMBERSHIP

Membership in Science & Technology Park

INTERESTS

Product design . Robotics . Artificial intelligence and machine learning . Innovative mechanisms . Cross functional collaboration . Creativity

TECHNICAL SKILLS

CAD Tools:

SolidWorks, CATIA, Creo, NX (basic), Teamcenter (familiar)

Programming & Simulation:

MATLAB/Simulink, Python

Prototyping & Design:

3D/2D mechanical design, rapid prototyping, DFM, DFA

Other

Leadership, Team Collaboration, Problem Solving

LANGUAGES

