

AFSHIN MOAZZAM

Environmental Engineer



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Date of Birth: 11 June 1996

Milano, Italy

EDUCATION

Master of Science – Environmental and Land Planning Engineering for Sustainability

Politecnico di Milano, Milan, Italy

September 2019 – July 2023

- Thesis Title: Investigating Spatiotemporal Variations of Suspended Particulate Matter and Turbidity in Lake Varese: Leveraging Sentinel-2 Satellite Imagery and Optical Modeling Approaches. (Supervisor: Prof. Maria Antonia Brovelli, Co-Supervisor: Dr. Mariano Bresciani), (Score: 7/7)
- GPA: 102/110
- Studied Courses: Soil Remediation Technologies, Solid Waste Treatment and Management, Water and Wastewater Treatment Plants, Pollution Measurement and Management, 3D Modeling and Mapping from Drone Images, Geographic Information System, Earth Observation, Natural Resources Management, Climate and Global Changes, Food and Water Security, Urban Planning

Bachelor of Science – Civil Engineering

Hormozgan University, Bandar Abbas, Hormozgan, Iran

September 2014 – January 2019

- Graduated as the top student.
- GPA: 16/20
- Studied Courses: Concrete Structure Design, Steel Structure Design, Foundation Design, Building Renovation, Technical Drawings, Urban Planning, Soil Mechanics, Fluid Mechanics, Statics, Computer Programming, Differential Equations, Numerical Analysis

High School Diploma

Mollasadra High School of Exceptional Talents

September 2010 – August 2014

Shiraz, Fars, Iran

Diploma GPA: 17.87/20

WORK EXPERIENCE

Teaching Assistant: C Computer Programming (6 semesters)

January 2016 – January 2019

Hormozgan University

- Checked student's home works and projects.
- Solved student's problems in the course.
- Helped the professor to evaluate students.

Teaching Assistant: Dynamics (2 semesters)

February 2016 – July 2017

Hormozgan University

- Held solving problems classes.
- Helped the professor to evaluate the students.

Teaching Assistant: Statistics and Probability (1 semester)

February 2016 – July 2016

Hormozgan University

- Held solving problems classes.
- Helped the professor to evaluate students.

Tutor: MATLAB (1semester)

February 2017 – July 2017

Hormozgan University

- Taught basics of MATLAB to MSc. students of structural engineering and physics.

Site Civil Engineer

July of 2017 - August 2018

Asar Architecture Group, Shiraz, Fars, Iran

- Controlled the constructing procedures in a residential building construction site.

Translator (Freelancer)

Since July of 2020

Iraniantranslate, Tehran, Tehran, Iran

- Translating articles in English to Persian.

Research Fellow

Since October of 2023

Politecnico di Milano, Milan, Italy

- Working on relation between temperature and local climate zones in Milano.

RESEARCH EXPERIENCE

How to Reduce Harm of Trash Disposal Sites to Environment

Hormozgan University, Bandar Abbas, Hormozgan, Iran

2017

Advisor: Prof. Behzad Kalantari

- Studied difficulties of disposing waste.
- Suggested innovative methods of constructing trash disposal sites and reducing their harm to environment.
- Studied the pros and cons of recycling.

Behavior of Concrete Structures during Fire

Hormozgan University, Bandar Abbas, Hormozgan, Iran

2017

Advisor: Dr. Shohre Shahnoori

- Effect of heat on durability and strength of concrete.
- Compared the behavior of concrete and steel during fire.

Corruption and Inequality

Politecnico di Milano, Milan, Italy

2020

Advisor: Prof. Maria Cristina Rulli, Prof. Renato Casagrandi

- Economic Aspects of Sustainable Development Goals (SDGs).
- The relationship between corruption and inequality.

Global Food Trade & Food Security

Politecnico di Milano, Milan, Italy

2020

Advisor: Prof. Maria Cristina Rulli, Prof. Davide Danilo Chiarelli

- Effects of global food trade on water footprint.
- Calculating of water footprint by FAO methods.
- Providing solutions to retain a sustainable global food trade.

Barrage du Châtelot

Politecnico di Milano, Milan, Italy

2020

Advisor: Prof. Andrea Francesco Castelletti

- Reservoir design and operation policies are carried out based on the results of different modeling methods (Auto-Regressive Model, Artificial neural network, Classification and Regression Tree) for water flow.

Maharloo Lake Water Level

Politecnico di Milano, Milan, Italy

2021

Advisor: Prof. Giovanna Venuti, Prof. Daniele Oxoli

- Study the satellite images of the area.
- Detecting the changes occurred in the water level of the lake.

Management of Li-ion batteries from electric vehicles

Politecnico di Milano, Milan, Italy

2021

Advisor: Prof. Mario Grosso

- Study the structure of Li-ion batteries.
- Identify main aspects in future production of LIBs.
- Identify end of life strategies.
- Analyzing case studies of the end-of-life strategies.

Assisted Anaerobic Biodegradation of a contaminated site by Chlorinated Hydrocarbons

Politecnico di Milano, Milan, Italy

2022

Advisor: Prof. Sabrina Saponaro

- Based on data gathered during characterization, a pilot test has been designed for the remediation purpose of a contaminated site by chlorinated hydrocarbons via anaerobic biodegradation.

Avalanche Hazard Map

Politecnico di Milano, Milan, Italy

2022

Advisor: Prof. Daniela Carrion

- By extracting contour data of a digital elevation model, potential avalanche hazard locations have been studied in a mountain area in Lombardy region.

PROJECTS

Green Pathway

2020

Politecnico di Milano, Milan, Italy

- Designed a renovation plan for the “Porta Genova Railway Yard” in Milan.

VOLUNTEER JOBS

Concrete Seminar – Executive Staff

2014

Hormozgan University, Bandar Abbas, Hormozgan, Iran

- Helped plan the time and place of the event.
- Designed brochures.

Spaghetti Structures Competition – Executive Staff

2015

Hormozgan University, Bandar Abbas, Hormozgan, Iran

- Helped plan the time and place of the event.
- Designed brochures.
- Found sponsors for the competition.
- Held classes to familiarize competitors with the rules of competition.

Asphalt Seminar – Executive Staff

2018

Hormozgan University, Bandar Abbas, Hormozgan, Iran

- Helped plan the time and place of the event.
- Designed brochures.
- Managed executive staff.

LANGUAGES

Persian: Native Language

English: Advanced

Italian: Novice

COMPUTER SKILLS

Programming: Python (Good), Java (Good), C Computer Programming (Basic), MATLAB (Good)

Applications: QGIS (Advanced), ArcGIS Pro (Good), SNAP (Good), Google Earth Engine (Good), Risk-Net (Basic), Microsoft Word (Advanced), Microsoft Excel (Advanced), Microsoft PowerPoint (Advanced), ETABS (Good), SAFE (Good), AutoCAD (Good), AutoCAD Civil 3D (Good), ArcMap (Good), Climwat (Good), Photoshop (Basic), Photomodeler UAS (Basic), AgiSoft Metashape (Good), Autodesk Recap (Basic)

HONORS AND AWARDS

Scientific Olympiad	2008
Second rank in the country.	

Football Competition	2009
Runners-up in the province.	

REFERENCES

Nasrolah Sahragard

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Maria Antonia Brovelli

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