

# MOHAMMAD HAGHIRI

Research Assistant at university of Illinois Chicago, Department of Earth, and Environmental Sciences,

☎ +1 312 684 1775 | @ [mhaghi2@uic.edu](mailto:mhaghi2@uic.edu) | [in LinkedIn](#) | [Website](#) | 📍 Chicago, IL, USA

## EDUATION

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**University of Illinois Chicago** Chicago, IL, USA  
*Ph. D Student* – Department of Earth and Environmental Sciences August 2023 – Present  
Research Subject: predicting Water Table level from 1500CE to 3000CE; **GPA:4.00** Advisor: Kerry Callaghan

**University of Tehran** Tehran, Iran  
*M. Sc. Hydrogeology* – Department of Geology September 2020 – May 2022 Research  
Subject: Hydrochemical and isotopic analysis of karst aquifers; **GPA:3.47** Advisor: Morteza Mozafari

**Kharazmi University** Tehran, Iran  
*B. Sc. Geology* – Department of Geology September 2016 – August 2020  
Research Subject: Remote Sensing and Field Visit for Runoff Harvesting; **GPA:3.40** Advisor: M.R Asef

## PUBLICATION

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**Haghir, M.**, Mozafari, M. Delineate the hydrogeology of karst aquifers at the Hashtgerd Basin (north Iran) using a combination of geologic, hydrodynamical, hydrochemical and isotopic investigations. (accepted at [Hydrogeology Journal](#)).

**Haghir, M.**, Asef, M.R. Remote sensing and field visit for small scale runoff harvesting for agricultural water consumption management, case study at Kariyan, Hormozgan, Iran. Environ Earth Sci 83, 416 (2024). <https://doi.org/10.1007/s12665-024-11734-8>

**Haghir, M.**, Raeisi, N., Azizi, R. et al. 2024. Evaluation of karst aquifer development and karst water resource potential using fuzzy logic model (FAHP) and analysis hierarchy process (AHP): a case study, North of Iran. Carbonates Evaporites 39, 11 (2024). <https://doi.org/10.1007/s13146-024-00925-w>.

**Haghir, M.**, Asef. M.R. Analysis of Comparative Advantage and Engineering Status of Freshwater Reservoirs across the Provinces in Iran. Iranian Journal of Engineering Geology, 2021. [http://www.jiraeg.ir/article\\_137494.html](http://www.jiraeg.ir/article_137494.html).

Habibi. S, Mozafari, M. Fijani. E, **Haghir, M.**, Determination of hydraulic conductivity and transferability of Hashtgerd Plain aquifer based on grain measurement and experimental formulas. [The 41st National Geosciences Congress, 2023](#).

## ACADEMIC POSITION

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Ph.D Student – Department of Earth and Environmental Sciences, University of Illinois Chicago 2023 – Present

Research topic: I am passionate about advancing my studies in Hydrology and Hydrogeology. My current project focuses on predicting groundwater resources and assessing the impact of climate variables using the Water Table Model (WTM) to understand present and future changes in terrestrial water tables.

Supervisor: Professor Kerry Lee Callaghan.

## Research Interests

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Hydrogeology; Climate Change; Water Table; landscape analysis and evolution; Karst Aquifer; Isotope Analysis, Rainwater Harvesting.

## ACADEMIC EXPERIENCE

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**TA: Global Environmental Change** – Department of Earth Science, University of Illinois Chicago. 2024  
prepared and independently presented labs. graded student labs and problem sets, held office hours, and assisted on a weekend field trip.

**TA: Hydrology and Hydrogeology** - Department of Earth Science, University of Illinois Chicago. 2023  
assisted in student instruction and grading of work during a high intensity 1-day field camp in northern Chicago.

**TA: Hydrogeology** – Department of Earth Science, University of Tehran. 2021  
helped Student labs, held office hours, and graded student submissions and I was head of field trip for this course.

**RA: Physical Geology** – Department of Earth Science, Kharazmi University. 2019

*Journal of Water Resources Management; Journal of Infrastructure, Policy, and Development* Peer Reviewer

## FUNDING, ACHIEVEMENTS AND AWARDS

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Department of Earth Sciences, University of Illinois Chicago 2023

Department of Earth Science, University of Tehran. 2021

Department of Earth Science, University of Tehran. 2020

Department of Geology, Kharazmi University. 2019

Geological Society of Iran 2018

Undergraduate student research grant

Geological Society of Iran 2017

Undergraduate student research grant

## CERTIFICATES

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ICDL (International Computer Driving License) Certificate (C1), Tehran University (120 hours) 2017

ArcGIS Software (C2), Tehran University (90 hours) 2018

Python Language (C1), Tehran University (160 hours) 2019