

# Curriculum Vitae

## Niloofer Zare

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### Education:

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- **Master of Science, Building Science - Energy and Architecture (2020 - 2022)**
  - Shahid Beheshti University, Tehran, Iran
  - **Thesis:** Investigating different approaches for quantifying the energy performance gap between the design and operation phases
  - **Supervisors:** Dr. Ali Shafaat, Dr. Mohsen Sartipipour
  - **GPA:** 4/4
- **Bachelor of Science, Architectural Engineering (2016 - 2020)**
  - Ferdowsi University of Mashhad, Mashhad, Iran
  - **Thesis:** Koohsangi neighborhood library with emphasis on the use of new energies
  - **Supervisor:** Dr. Akram Hosseini.
  - **GPA:** 3.74/4

### Publications:

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- Etemad, A., **Zare, N.**, Shafaat, A., Bahman, A., (2024), Assessing strategies for retrofitting cooling systems in historical buildings, *Energy reports*, [DOI: 10.1016/j.egy.2024.01.017](https://doi.org/10.1016/j.egy.2024.01.017)
- **Zare, N.**, Ebrahimi, M., Shafaat, A., Bahman, A., Sartipipour, M., (2023), Investigation of Heating Energy Performance Gap (EPG) in design and operation stages of residential buildings, *Energy and Buildings journal*, [DOI: 10.1016/j.enbuild.2023.113747](https://doi.org/10.1016/j.enbuild.2023.113747)
- **Zare, N.**, Shafaat, A., Asadi, S., (2022), Review of energy performance gap and solutions in residential buildings, *IOP Conference Series: Earth and Environmental Science*, 1085-012013, [DOI: 10.1088/1755-1315/1085/1/012013](https://doi.org/10.1088/1755-1315/1085/1/012013).
- Bemanian, M.R., Talaei, M., Motevali, H., Rezai, S., **Zare, N.**, (2020), Dimensions of historical urban walls of Iran, *Book*. [In the Persian Language]
- **Zare, N.**, Hosseini, A., (2019), Investigating the effect of implementation potentials of BIM technology on improving the performance of cultural heritage documentation, The 8<sup>th</sup> National Conference on Civil Engineering, Architecture and Urban Development. [In the Persian Language]

### Honors and Awards:

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- Awarded as the first-top student in the master's degree. (2022 - Shahid Beheshti University)
- Awarded as the third-top student in the bachelor's degree. (2020 - Ferdowsi University)
- Being among exceptionally talented students during bachelor's degree and eligible for the direct Master' without taking the national entrance exam. (2020 - Ferdowsi University)

### Research interest fields:

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|---------------------------------|-------------------------------------|
| • Building energy performance   | • Energy efficiency                 |
| • Occupant-building interaction | • Indoor environmental quality      |
| • Thermal comfort               | • Machine learning and data science |

## Software skills:

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• EnergyPlus® ●●●●○	• Revit® Architecture and MEP - LOD 400 ●●●●○
• DesignBuilder® ●●●●○	• Climate Studio ●●●●○
• Rhino / Ladybug Tools ●●●○○	• Dialux ●●●○○
• Python ●●●○○	• Orange - Data Mining ●●○○○

## Professional Certifications:

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- Machine Learning and Python in Building Science, IBPSA-Iran. (2023)
- Accelerating Building Decarbonization with Leadership in Energy and Environmental Design, The U.S. Green Building Council course. (2022)
- Acquaintance with green building certificates, Upgreengrade group course. (2022)
- Energy Supply Systems for Buildings, DelftX, edx courses. (2020)
- Autodesk Revit Architecture, QAL-UK. (2019)

## Academic and Professional Experiences:

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- Teaching Assistant for the “Sustainable Construction” class, graduate-level course, Department of Construction, Shahid Beheshti University. (Spring 2024 semester)
- Teaching Assistant for the “Machine Learning and Python” class, graduate-level course, Department of Construction, Shahid Beheshti University. (Fall 2023 semester)
- Freelance Architect, BIM modeling, and energy simulation. (2020-present)
- Architectural intern at Rasa Office, Mashhad, Iran. (2019-2020)

## Selected MS. Courses:

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Ventilation and aerodynamics in the building (2022)	Energy audit systems and methods (2021)
Acoustic in the building (2022)	Active and passive systems (2020)
Natural and artificial lighting in the building (2021)	Mechanical and Electrical systems (2020)
Building energy simulation and software application (2021)	Heat transfer (2020)

## Language:

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- Persian: Native language
- English: Academic IELTS overall score: 7.0 (L:6, R:7, W:7, S:7)

## References:

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- Dr. Ali Shafaat, Master thesis advisor. (Assistant Professor, Department of Construction, Shahid Beheshti University) E-mail: [a\\_shafaat@sbu.ac.ir](mailto:a_shafaat@sbu.ac.ir)
- Dr. Mohsen Sartipipour, Master thesis supervisor. (Professor, Department of Construction, Shahid Beheshti University) E-mail: [m-sartipi@sbu.ac.ir](mailto:m-sartipi@sbu.ac.ir)
- Dr. Ammar Bahman, Advising in research projects. (Assistant Professor, Department of Mechanical Engineering, Kuwait University) E-mail: [a.bahman@ku.edu.kw](mailto:a.bahman@ku.edu.kw)