

ELNAZ JAMALZADEH

M.SC. ARCHITECTURE-ENERGY | BUILDING PERFORMANCE & ENERGY RESEARCHER



CONTACT

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Iran

[Elnaz Jamalzadeh](#)

LANGUAGES

- English (C1)

TOEFL iBT 110/120

- Dutch (A1)
- Persian (Native)

CERTIFICATES

- Machine Learning with Python
(Maktabkhooneh)

- Renewable Energy and Green
Building Entrepreneurship
Duke University Nicholas School of the
Environment

- Wood Science: Beyond Building
West Virginia University

PROFILE

M.Sc. student in Architecture-Energy focused on building energy performance, retrofit, thermal comfort, and data-driven optimization. Experienced in EnergyPlus simulation, model calibration, Ladybug Tools, Honeybee, Python, and machine learning. My current research develops a surrogate-model-based framework for multi-objective energy-cost retrofit optimization. I have also received recognition for research-led architectural competition projects, including the Golden Trezzini Awards and the Urmia Afaq Competition.

EDUCATION

Iran University of Art

2024 - PRESENT

M.Sc. in Architecture - Energy

- Thesis:* Development of a Surrogate-Model-Based Decision-Making Framework for Multi-Objective Energy-Cost Optimization of Residential Building Retrofit in a Cold and Semi-Arid Climate, Case Study: A Residential Building in Karaj**
- Conducted indoor and outdoor thermal comfort analyses using Ladybug Tools and Honeybee, including UTCI-based urban comfort assessment and evaluation of passive design strategies for improving thermal comfort and environmental performance.

University of Science and Culture

2020 - 2024

B.Sc. in Architecture

GPA: 19.38/20 | Rank: 3rd of 65 students

- Developed architectural design projects emphasizing sustainability, environmental performance, and climate-responsive design.
- Gained experience in architectural design, technical documentation, environmental analysis, and building-performance-oriented design.

AWARDS

- Bronze Certification in the Student Category of golden trezzini awards** 2024
- Awarded for the "Lego Complex" student project, developed through research-based architectural design exploring spatial organization, user needs, and innovative design strategies.
- Honorable mention project in the Urmia Afaq Competition** 2023
- Recognized for a water-treatment design proposal developed through research into sustainable water management, environmental performance, and architectural integration.

SKILLS

- Building Energy Simulation
- EnergyPlus
- Model Calibration
- Retrofit Analysis
- Thermal Comfort Analysis
- Ladybug Tools & Honeybee
- Python
- Machine Learning
- Data Analysis
- Surrogate Modeling
- Multi-objective Optimization
- Climate-Responsive Design

RESEARCH & PROFESSIONAL EXPERIENCE

Master’s Thesis Researcher 2024 – Present
Iran University of Art

- Conducting thesis research on calibrated EnergyPlus modeling and data-driven retrofit optimization, combining building energy simulation, Python-based analysis, machine learning, and multi-objective optimization for residential building performance improvement.
- Evaluating residential retrofit scenarios to identify energy-cost trade-offs and support evidence-based decision-making for energy-efficient building renovation.

Architect 2024 (6 months)
Pey afarin Arsin · Internship

- Develop and design plans using AutoCAD, ensuring accuracy and adherence to project requirements.
- Collaborate with senior designers and project teams to create detailed technical drawings and layouts.

Writer & Editor — Architecture Section
Sekonj Journal, University of Science and Culture 2022-2023

- Contributed to the preparation, editing, and review of architecture-related content for the university journal.