

EDUCATION

Ph.D. Candidate in Design

College of Design, North Carolina State University 2023
 Thesis: Innovative, Human-Centric Daylighting System Design: Prismatic Vertical Louvers (PVLs) System
 GPA: 3.72 / 4.00

M.A in Energy and Architecture

Department of Architecture, University of Art, Tehran, Iran 2015
 Thesis: The Assessment of the Window Blind's Effect on Energy Consumption in the Office Buildings of Tehran
 GPA: 4.00 / 4.00

B.A in Architecture

Department of Architecture, Shariaty Technical College, Tehran, Iran 2012
 Thesis: Designing a Performing Art Center in Tehran (Excellent Grade),
 GPA: 4.00 / 4.00

WORK EXPERIENCE

Sustainability Intern at:

Beck Group Summer 2022
 Conducting Energy Analysis for projects: COVE tool
 Conducting Daylight Analysis for projects: COVE tool
 Documenting LEED Certification: LEED credit library, Bluebeam, Excel

Thornton Tomasetti 2021-22
 Conducting Energy Analysis for projects: Honeybee&Ladybug, OpenStudio
 Conducting Daylight Analysis for projects: Honeybee&Ladybug
 Conducting Thermal Comfort Analysis for projects: Honeybee&Ladybug
 Conducting PV analysis for NZE buildings
 Conducting Passive house study for projects: Sketchup, WUFI
 Conducting Heat transfer analysis for projects: Honeybee&Ladybug , Therm

Energy Specialist and Researcher at:

Saytal Sakht Company, Tehran, Iran 2017-18
 Conducting Daylight analysis for City Center Project Multi-Purpose Complex: Honeybee&Ladybug
 Conducting Environmental analysis and glare study for Twin Towers Telecommunication Office Complex: Honeybee&Ladybug
 Conducting Energy Analysis for different other projects: EnergyPlus, Honeybee&Ladybug

Department of Energy in Building and Housing Research Center (BHRC), Tehran, Iran 2014-19
 Initial sustainability potential study for projects: Honeybee&Ladybug, Ecotect
 Codification of Windows' Technical Certification
 Energy efficiency code guide edition
 Energy analysis for Young Cities- Hashtgerd (German-Iranian research project): OpenStudio, SketchUp, EnergyPlus

Architectural Designer at:

Rooydad Consulting Engineering Company, Tehran, Iran 2009
Hasteh Negar Consulting Engineering Company, Tehran, Iran 2008

RESEARCH EXPERIENCE

Research Assistant

College of Design, NCSU 2018-Present

Author of Article

"Assessment of Optical Characterization of Prismatic Materials (PMs), Using genBSDF For Virtual Simulation and a Goniophotometer for Physical Measurements" Under Review
 Journal of Building and Environment

"The Evaluation of a New Daylighting System's Energy Performance: Reversible Daylighting System (RDS)" 2022
 2022 Building Performance Analysis Conference and SimBuild, Co-organized by ASHRAE and IBPSA-USA.

"The Influence of Light Shelves on Improving the Performance of Indoor Space: An Educational Case Study in Raleigh, North Carolina" 2019
 EDRA (Environmental Design Research Association), Brooklyn, NY, US.

"The assessment of window blinds effect on conserving energy consumption of office buildings in Tehran" (In Persian) 2017
 Scientific Research Monthly Journal of Modares Mechanical Engineering

"The assessment of lighting through atrium in different floors of office buildings in Tehran" 2014
 First international Congress of New Horizons in architecture and Urbanism, Tehran

Co-author of Article

"Optical Elements for Reflecting Away Beam Sunlight while Admitting Diffuse Skylight Through Building Apertures" Under Review
 Journal of Building and Environment

"Energy and Daylight Simulation Analysis of an Innovative Horizontal Skylight System Incorporating a Bi-directional Scattering Distribution Function (BSDF) Prismatic Optical Layer" 2022
 2022 Building Performance Analysis Conference and SimBuild, Co-organized by ASHRAE and IBPSA-USA

“Assessing the effect of volume compaction and sunlight gain through external walls to optimize energy consumption in buildings” 2014
 Third National Conference on Climate Change, Building and Energy Conservation, Isfahan, Iran

Patent

“The Combined System of Reversible, Energy Conservative Window and Shading” 2016
 National Patent Office of Iran

Keynote Speaker as an advisor in “Honeybee and Ladybug” Plugins 2016
 Conference “From Gray Architecture to Green Architecture”, Isfahan, Iran

RESEARCH INTERESTS

High Performance Building (HPB) | Building performance analysis/research | Design for sustainability
 Design for comfort | Integrated building design | Human-centered design | User Experience in building
 Python Scripting in building performance analysis

TEACHING EXPERIENCE

Lecturer:

University of Garmsar, Semnan, Iran 2017-18
 Courses Name: Perspective

University of Science and Culture, Tehran, Iran 2015-18
 Courses Name: Vernacular and Rural Architecture
 Environmental Conditions Adjustment
 Perspective

Technical and Vocational College of Sama, Tehran, Iran 2016
 Courses Name: Technical Architectural English Language
 Architectural Design

Teaching:

Honeybee and Ladybug 2016
 Research Training Center of Isfahan University of Technology
 University of Tehran 2015
 Personal Office at Tehran 2015-18

Teaching Assistant:

College of Design, NCSU 2018-Present
 Course Name: Architectural Structure (ARC 331- ARC 332)
 Architectural Design: Advanced (ARC 402)

Department of Architecture and Urbanism, University of ART, Tehran, Iran. 2015
 Course Name: Vernacular and Rural Architecture

SELECTED CERTIFICATIONS

U.S. Green Building Council 2022
 LEED Green Associate

Linkedin Learning

Critical thinking 2023
 UX Foundations: Usability Testing 2022
 UX Foundations: Interaction Design 2021
 UX Foundations: Research 2020
 Grasshopper and Rhino: Python Scripting 2020

University of Michigan

Python basics 2021
 Programming for Everybody (Getting Started with Python) 2019

SELECTED AWARDS AND ACTIVITIES

- Scientific Reviewer for 2022 Building Performance Analysis Conference and SimBuild Conference, ASHRAE & IBP-SA-USA. 2022
- Skidmore Owings and Merrill (SOM) grant for project: Natural Light and Health in Urban Environments 2020
- Fellowship Award, NCSU, US 2018
- Fellowship award for Master of architecture and energy, Tehran University of Art, Iran 2015
- Second place award in designing a monument for Mirza Kuchik Khan, Masal, Mazandaran, Iran 2012

SKILLS

Software Skills

ENERGY PLUS	<div style="width: 80%;"></div>
OPEN STUDIO	<div style="width: 70%;"></div>
DESIGN BUILDER	<div style="width: 60%;"></div>
ECOTECT	<div style="width: 90%;"></div>
LADYBUG & HONEYBEE	<div style="width: 95%;"></div>
EQUEST	<div style="width: 75%;"></div>
LBNL (THERM, WINDOW, OPTIC,...)	<div style="width: 95%;"></div>
AUTOCAD	<div style="width: 90%;"></div>
RHINO	<div style="width: 95%;"></div>
SKETCHUP	<div style="width: 85%;"></div>
REVIT	<div style="width: 70%;"></div>
CLIMATE CONSULTANT	<div style="width: 95%;"></div>
CLIMATE STUDIO (DIVA)	<div style="width: 90%;"></div>
DESIGN EXPLORER	<div style="width: 85%;"></div>
QUALTRICS	<div style="width: 75%;"></div>
COVE TOOL	<div style="width: 80%;"></div>

Data Analysis Software

R	<div style="width: 40%;"></div>
SAS	<div style="width: 60%;"></div>
SPSS	<div style="width: 50%;"></div>

General Software Skills

MS Office (WORD, POWERPOINT, EXCEL)	<div style="width: 95%;"></div>
ADOBE PHOTOSHOP	<div style="width: 90%;"></div>
ADOBE INDESIGN	<div style="width: 95%;"></div>
ADOBE ILLUSTRATOR	<div style="width: 90%;"></div>
TABLEAU	<div style="width: 60%;"></div>
BLUEBEAM	<div style="width: 75%;"></div>

Programming Software

Python	<div style="width: 40%;"></div>
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Language Skills

PERSIAN	<div style="width: 95%;"></div>
ENGLISH	<div style="width: 90%;"></div>
AZERBAIJANI	<div style="width: 40%;"></div>