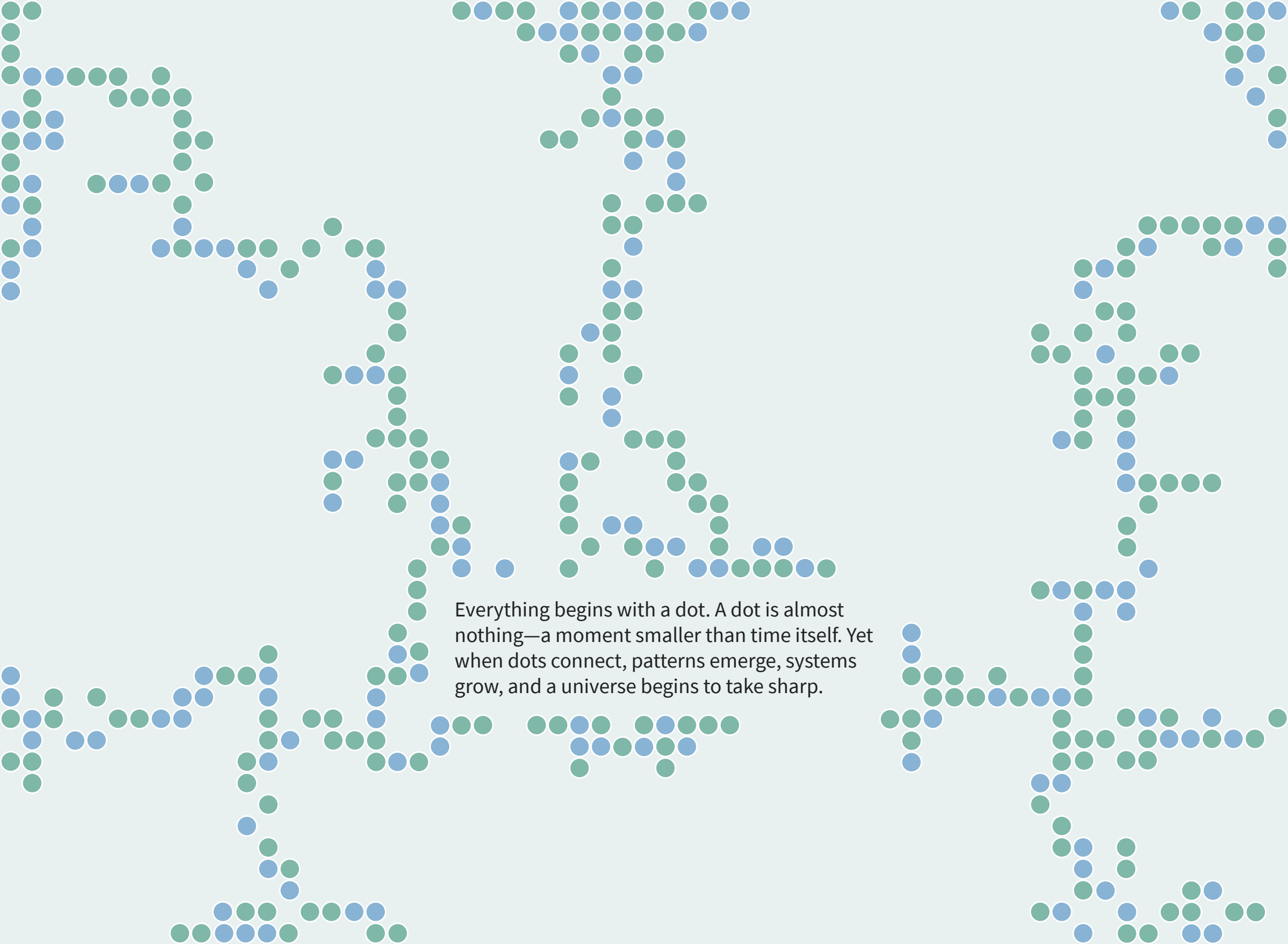


Hossein Nazari

Algorithmic Design & Computational Form-Finding
Sustainability & Built Environment Simulation



Everything begins with a dot. A dot is almost nothing—a moment smaller than time itself. Yet when dots connect, patterns emerge, systems grow, and a universe begins to take shape.



Beyond The Projects: A Story in Layers

Portfolios tend to show the parts of a path where things worked—the outcomes that can be presented clearly and the ideas that eventually reached resolution. Yet every body of work carries another layer that rarely appears in these curated pages: the abandoned directions, the unresolved attempts, the long stretches of uncertainty where progress was neither visible nor guaranteed. These moments often receive the convenient label of failure, and so they remain outside the frame, even though they quietly shape the thinking behind everything that eventually succeeds.

I refer to this hidden layer as the dark side of the journey. Not because it is negative, but because it usually remains unseen—formed by trials, missteps, and persistent effort that do not translate easily into finished work. While this portfolio presents the visible outcomes, that darker and more human dimension of the path is documented elsewhere. In [My Journey], those moments are not edited out but allowed to exist alongside the projects, revealing the fuller story behind how this direction gradually took shape.

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Profile

Full Name:

Hossein Nazari

Nationality:

Iranian

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English, Professional Working Proficiency

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Professional Summary

My work focuses on computational climatic form-finding, where climate analysis and environmental simulation act as generative drivers for shaping adaptive and environmentally performative architectures, landscapes, and urban systems. Through algorithmic design and data-driven exploration, I develop computational workflows that translate climatic conditions into spatial strategies.

Extending this form-finding approach beyond climatic inputs, I investigate how other data layers—social, economic, perceptual, and environmental—can also inform generative design processes. In this context, I explore Social Digital Twins as dynamic simulation of human behavior and comfort within built environment, aiming to align environmental performance with user experience and to inform more intelligent design strategies.

Education

M.Arch in Sustainable Architecture

Iran University of Science and Technology (IUST), Tehran, Iran — 2022

Thesis: Impact of Building Alignment on Energy Efficiency

Focus on parametric analysis, energy performance evaluation, and climate-responsive building layout and arrangement.

B.Arch in Architecture

Soore University, Tehran, Iran — 2016

Thesis: Designing a Respiratory Rehabilitation Hospital-Hotel

Focus on patient-centered healthcare environments integrating treatment facilities with hospitality-like spaces for patients and their families during recovery.



Professional Experiences

NexoNest — Founder and R&D Lead — 2021-Present

Founded a personal R&D platform focused on developing computational tools and generative workflows for sustainable architecture and urban design.

- Developed custom computational tools using scripting and compiled workflows for performance-driven design and environmental simulation.
- Explored data-driven form-finding strategies integrating climatic and spatial datasets.
- Designed computational pipelines connecting generative modeling and simulation environment.

Morphotect — Lead Computational Designer — 2023 - Present

Leading computational workflows for urban simulation, generative design, and Digital Twin systems.

- Developed agent-based simulation models for urban and architectural analysis.
- Designed data-processing frameworks integrating spatial and environmental datasets.



- Built experimental pipelines linking simulation environments with parametric design tools.

Digital Twin Bootcamp — Lead Planner & Instructor — 2023

Morphotect × Iran University of Science and Technology

- Designed the curriculum and computational workflow for an intensive Digital Twin bootcamp.
- Coordinated collaboration between academia and professional practice.
- Guided participants to find a problem and design its solution in developing prototype architecture and urban Digital Twin models.

IUST — Teaching & Research Assistant — 2023 - 2024

- Conducted research on climate-responsive form-finding and environmental performance analysis.
- Developed parametric and custom tools for energy and daylighting simulation.
- Assisted teaching computational design and environmental simulations workflows.

Independernt Instructor — 2022 - Present

- Delivered workshops on Rhino, Grasshopper, Climate Studio, and Ladybug tools.
- Taught performance-based and climate-responsive design workflows.



Workshops, Seminars & Webinars

Seminar — Computational Design Tools for Sustainable Architecture

Iran University of Science and Technology — 2023

- Presented computational design workflows for sustainability-driven architecture design and environmental simulation.
- Introduced OctoMass, a custom Grasshopper plugin developed for parametric massing generation, enabling rapid exploration of design alternatives integrated with Ladybug Tools for early-stage environmental analysis.

Workshop — ClimateStudio for Environmental Performance Analysis

Design Studio Students, IUST — 2023

- Delivered an Intensive workshop introducing ClimateStudio for daylight and energy analysis.
- Demonstrated workflows for integrating environmental simulations into early design stages.

Webinar — Fundamentals of Sustainability in the Built Environment

Online, March 2024 ,2023

- Designed and curated original educational content integrating environmental, social, and economic aspects of sustainability for designers.
- Introduced core principles of sustainable development and performance-based design in architecture and urban design.
- Discussed human health implications and Sick Buildings Syndrome as part of holistic sustainability.
- Presented simulation tools and data-driven decision-making workflows for early-stage design assessment.
- The 2024 edition expanded to include case studies and simulation-based research application from recent workshops.



The Second Look

Reaching a destination often changes how the path behind it is understood. What once appeared as failure begins to look different when seen from the vantage point of resolution; the wrong turns and difficult stretches reveal themselves as the very conditions that made discovery possible. In retrospect, the so-called dark side of a journey is not its opposite but its counterpart—the demanding terrain through which curiosity proves its seriousness and direction gains meaning.

There are very few things in the world that truly reward a second look. This portfolio quietly assumes that possibility. Somewhere within these pages, the dark side appears again—no longer as a record of failed attempts, but as an invitation to experience the other half of the path. For those willing to explore once more, it marks a small threshold hidden in plain sight, where the journey can be encountered from a different angle.