Shervin Azadi

Born	February 22, 1993
Email	shervinazadi93@gmail.com
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Github	github.com/shervinazadi

Education

2017 - 2019 MSc in Architecture (Cum laude), TU Delft;
Master of Science Architecture, Urbanism and Building Sciences / Architecture Track

2011 - 2016 BSc in Architectural Engineering, University of Tehran;
Bachelor of Science in Architectural Engineering

2007 - 2011 Dip in Mathematics and Physics, Allameh Helli High School.
NODET: National Organization for Development of Exceptional Talents

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Professional Experiences

2019 - now *Researcher*, at TU Delft, Chair of Design Informatics;
- Research: Co-supervision of four MSc graduation projects in Building Technology track
  EquiCity: digital serious gaming for participatory city planning and management
  GoDesign: graph theoretical formulation of the participatory architectural design process
  ModuGraph: generative graph grammars for modular construction
- Education: Spatial Computing: BSc minor, multi agent systems for generative design in mixed-use complexes, (BK7083)
  Earthy: MSc studio, computational design for low-tech earthy constructions, (AR3B011)

2018 - 2019 *Teaching Assistant*, at TU Delft, Chair of Design Informatics;
under supervision of Dr. Ir. Pirouz Nourian
- Research: PolyShell: construction design of adobe shell structures by topological polyhedralization
- Education: Spatial Computing, Earthy, Future Models: data-driven design utilizing agent-based models, (AR1TWF030)

2017 *Research Design Assistant*, at Tehran Platform;
Research & Workshop: IaaC GSS-17: Tehran, Inside Out: emotion-related data visualization of Tehran

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Grants & Honours

2020 NWA Idea Generator; Fundings for EquiCity; 50k€
Co-authored the proposal with Prof. Dr. Ana Pereira Roders (Project Leader) & Dr. Ir. Pirouz Nourian

2020 MIT Summer Research Project Grant; Fundings for SOSAges; 2k$
Co-authored the proposal with Ardalan SadeghiKivi

2019 Actieagenda Ruimtelijk Ontwerp 2017-20, Ontwerp en Overheid; Fundings for GoDesign; 30k€
Co-authored the proposal with Dr. Ir. Pirouz Nourian (Project Leader)

2019 Cum laude in MSc, TU Delft;

2019 Honors Master Program, TU Delft; Resulted in PolyShell project
Collaboration with Karim Daw; under supervision of Dr. Ir. Pirouz Nourian

2011 Ranked in best 0.1%, National University Entrance Exam.
Ranked 194 among 252,312 in Mathematics & Physics, National University Entrance Exam of Iran

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Publications

2020 Gamifying an Urban Redevelopment Process in Search for Consensus; Bai, Nan; Azadi, Shervin; Nourian, Pirouz; Pereira Roders, Ana; 2020, Proceedings of the 38th eCAADe: Werner, L. & Koering, D. (eds.). Vol. 2. p. 555-564[pdf]

submitted A computational approach for checking compliance with European view and sunlight exposure criteria; Brembilla, Eleonora; Azadi, Shervin; Nourian, Pirouz; in Building Simulation 2021 Conference

submitted Quadratic assignment problem using spatial geodesic distance for renovating a hospital layout design; Cubukcuoglu, Cemre; Nourian, Pirouz; Tasgetiren, M. Fatih; Sariyildiz, I. Sevil; Azadi, Shervin; in Journal of Building Engineering

2019 Earthy Honeycombs: Construction Design of Adobe Shell Structures by Topological Polyhedralization; Daw, Karim; Azadi, Shervin; Nourian, Pirouz; Hoogenboom, Hans; In IASS 2018: Annual Symposium of the International Association for Shell and Spatial Structures: IASS.doi:10.13140/rg.2.2.19015.75684

Additional Experiences

Independent Projects

2020 - now *Developer & Maintainer*, of topoGenesis: Open-source Python Package of Computational Topology for Generative Systems
Collaboration with Dr. Ir. Pirouz Nourian

2019 - now *Co-founder*, at Genesis Lab: Generative Sciences and Systems Lab, TU Delft
Co-founded with Dr. Ir. Pirouz Nourian

2019 - now *Co-founder*, at Emergentium: Research Infrastructure for Urban Simulations
Co-founded with Nour Abuzaid;

2019 - now *Co-founder*, at SOSAges: Generative Art Project [Some Other Solution Ages]
Co-founded with Ardalan SadeghiKivi

Teaching

2020 - now *Supervisor*, in Graduation Project; at MSc Building Technology Track; TU Delft
Aditya Soman: A Platform for developing architectural configurations using generative design methodologies;
Anastasia Florou: An optimization model for building envelopes as to climatic and functional requirements;
Max Ketelaar: A generative methodology for layout design of affordable residential projects using MCDA;
Selina Bitting: Block Parti: Topological Optimization and Gamification of Generative Design;

2018 - now *Instructor*, at Spatial Computing; TU Delft - BK7083 - git
BSc Minor: multi agent systems for generative design in mixed-use complexes;

2018 - now *Instructor*, at Earthy; TU Delft- AR3B011 - git
MSc Building Technology Design Studio: Computational configuration and structure design for low-tech earthy constructions;

2018 - 2019 *Teaching Assistant*, at Future Models; TU Delft - AR1TWF030
MSc Architecture Seminar: Data-driven design utilizing agent-based models;

2017 *Assistant*, at Tehran Inside Out; IaaC global summer school
Workshop of Computational Architecture at TehranPlatform: IaaC global summer school, Tehran node;

Volunteering

2018 - 2019 *Event organizer*; at Work/Out
Event series pushing the discussion about the working culture & conditions of architects

2016 *Volunteer*; at ICMPS: Iranian Child Maltreatment Prevention Society
Event Conductor and Graphic Designer; in coordination with National Children's Rights Convention

Σkills

Methodological Skills

Spatial Data Analysis	Advanced; Proficient in the generation, manipulation and analysis of various spatial models such as surface-based, volumetric and graph-theoretical models.
Scientific Computing	Intermediate; Capable of design and implementation of algorithms and simulations utilizing Numerical Analyses, Finite Differences, and recently Automatic Differentiation
Software Development	Intermediate; Experienced with test-driven development and version control systems (python)
Automation	Intermediate; Experienced with workflow automation (mainly in spatial data analysis)

Technical Skills

Python	Expert; Package Development, Scientific Computing, Agent-Based Models, Data Vis, Geometry Vis; NumPy, SciPy, Pandas, NetworkX
JavaScript	Advanced; Data Vis, Interactive Interfaces; Three.js, deck.gl, React, D3, Node JS
C++	Intermediate; Generative Systems, Agent-Based Models, Volumetric and Geometric Computation, Physic-Based Simulations, Data Vis, Geometry Vis, Houdini/VEX
Java	Intermediate; Processing, Arduino
C#	Novice; Computational Geometry: Rhino, Grasshopper

Representation Skills

Documentation	Advanced; LaTeX, MarkDown, reStructuredText
3D Modeling & Rendering	Advanced; Houdini, Cinema 4D, Grasshopper, Rhino, VRay, Vector Rendering
Interaction & Game Engines	Intermediate; Unity, Unreal, deck.gl, React, Vue, Three.js, D3

Languages

Farsi	Native
English	Fluent, C1

• Last updated: February 23, 2021 •