

Shervin Azadi

Bornn February 22, 1993
Email s.azadi-1@tudelft.nl
Website shervinazadi.com

Σpecialisation Areas

Generative Spatial Design,
Computational Configuration Design,
Volumetric Computing,
Gamification;

Education

- 2017 - 2019 MSc in Architecture, 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

Πrofessional Experiences

- 2019 - now *Researcher*, TU Delft;
Chair of Design Informatics
Research:
[GoDesign](#): mathematical formulation for gamification of the participatory design process
[ModuGraph](#): generative graph grammars for modular construction
Education:
[Spatial Computing](#): BSc minor, volumetric generative design systems for residential complex
[Earthy](#): MSc studio, computational configuration and structure design for low-tech earthy constructions
- 2018 - 2019 *Teaching Assistant*, TU Delft;
Chair of Design Informatics, under supervision of Dr. Ir. Pirouz Nourian
Research:
[PolyShell](#): construction design of adobe shell structures by topological pöolyhedralization
Education: [Spatial Computing](#), [Earthy](#)
[Future Models](#): data-driven design utilizing agent-based models
- 2017 *Research Assistant*, Tehran Platform.
Research & Workshop: IaaC GSS-17: Tehran, Inside Out: emotion-related data visualization of tehran

Γrants & Honours

- 2019 Actieagenda Ruimtelijk Ontwerp 2017-20, Samenwerken aan Ontwerpkraft, Ontwerp en Overheid
€30,000 for [GoDesign](#) project
Co-authored the proposal with Dr. Ir. Pirouz Nourian
- 2019 Cumlaude in MSc, TU Delft
- 2019 Honors Master Program, TU Delft
Based on [PolyShell](#) research 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

Πublications

- submitted Bai, Nan & Azadi, Shervin & Nourian, Pirouz & Pereira Roders, Ana. Gamifying an Urban Redevelopment Process in Search for Consensus
- submitted Cubukcuoglu, Cemre & Nourian, Pirouz & Tasgetiren, M. Fatih & Sariyildiz, I. Sevil & Azadi, Shervin. Quadratic assignment problem using spatial geodesic distance for renovating a hospital layout design
- 2019 Daw, Karim & Azadi, Shervin & Nourian, Pirouz & Hoogenboom, Hans. (2019) Earthy Honeycombs: Construction Design of Adobe Shell Structures by Topological Polyhedralization.
[doi:10.13140/rg.2.2.19015.75684](https://doi.org/10.13140/rg.2.2.19015.75684)

Experiences

PROJECTS

- 2020 - now Developer and Maintainer of VolPy: Volumetric Computation in Python
python package for scientific analyses of volumetric data
Collaboration with Dr. Ir. Pirouz Nourian
- 2019 - now Co-founder at [GSS-Lab](#): Generative Sciences and Systems Lab
Co-founded with Dr. Ir. Pirouz Nourian
- 2019 - now Co-founder at [Emergentium](#): Rule-based Urban Emergence
Co-founded with Nour Abuzaid
research project aiming to integrate the interface and the computational logic in a design platform
- 2019 - now Co-founder at [SOSAges](#): Some Other Solution Ages
Co-founded with Ardalan SadeghiKivi & Armin Rangani
art project that explores the human perception process in new media

TEACHING

- 2018 - now Spatial Computing - [BK7083](#) - [git](#)
BSc Minor at TU Delft: Volumetric generative design systems for residential complex;
- 2018 - now Earthy - [AR3B011](#) - [git](#)
MSc Building Technology Design Studio at TU Delft: Computational configuration and structure design for low-tech earthy constructions;
- 2018 - 2019 Future Models - [AR1TWf030](#)
MSc Architecture Seminar at TU Delft: Data-driven design utilizing agent-based models;
- 2017 IaaC global summer school - [Tehran Inside Out](#)
Workshop of Computational Architecture at TehranPlatform: IaaC global summer school, Tehran node;
- 2014 - 2016 Freelance architectural software tutor: Rhino, VRay;

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

METHODICAL SKILLS

Spatial Analyses	Advanced Proficient in 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
Automation	Intermediate Experienced with workflow automation (mainly in computational design)

TECHNICAL SKILLS

Python	Advanced Package Development, Scientific Computing, Agent-Based Models, Data Vis, Geometry Vis NumPy, SciPy, Pandas, NetworkX
Houdini/VEX	Advanced Generative Systems, Agent-Based Models, Volumetric and Geometric Computation, Physic-Based Simulations, Data Vis, Geometry Vis
JavaScript	Intermediate Data Vis, Geometry Vis, Interactive Interfacesm Three.js, D3, Vue, Firebase, Node JS
Java	Intermediate Processing, Arduino
C#	Basic Computational Geometry: Rhino, Grasshopper
Haskell	Enthusiastic Beginner Starting with Automatic Differentiation

REPRESENTATION SKILLS

Documentation	Advanced LaTeX, Markdown, reStructuredText
3D Modeling	Advanced Houdini, Grasshopper, Rhino, Cinema 4D
Rendering	Advanced Mantra, V-Ray, Vector Rendering
Interaction	Intermediate Unity, Unreal, Vue, Three.js, D3

LANGUAGES

Farsi	Native
English	Fluent