# Shervin Azadi

| | |
|---|---|
| Born | February 22, 1993 |
| Email | s.azadi-1@tudelft.nl |
| Website | shervinazadi.com |
| Github | github.com/shervinazadi |

## 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: graph theoretical formulation of the participatory architectural 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 polyhedralization |
|---|---|
| Education | Spatial Computing, Earthy |
| | Future Models: data-driven design utilizing agent-based models |

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

**2017**  *Architect Assistant*, RMJM - Tehran;

| Design | Iran Historical Car Museum |
|---|---|
| | Dafineh: Iran's National Jewelry Museum |

| 2014 - 2015 | *Architectural Design Assistant*, ABT Co; |
| | Design | Laleh International Hotels Renovation |
| | | Mosha Residential Complex |
| | | Cultural Heritage Organization Offices |
| 2014 | *Architectural Intern*, ABT Co. |
| | Design | Design: Laleh International Hotels Offices |

---

## Γrants & Honours

| 2020 | MIT Summer Research Project Grant; |
| | Fundings for SOSAges: Some Other Solution Ages |
| | Co-authored the proposal with Ardalan SadeghiKivi |
| 2019 | Actieagenda Ruimtelijk Ontwerp 2017-20, Samenwerken aan Ontwerpkracht, Ontwerp en Overheid; |
| | Fundings 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 projct |
| | 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 | Gamifying an Urban Redevelopment Process in Search for Consensus; Bai, Nan & Azadi, Shervin & Nourian, Pirouz & Pereira Roders, Ana |
| 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 |
| 2019 | Earthy Honeycombs: Construction Design of Adobe Shell Structures by Topological Polyhedralization; Daw, Karim & Azadi, Shervin & Nourian, Pirouz & Hoogenboom, Hans doi: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, Grasshopper, 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 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 Package Development | **Intermediate** |
| | Experienced with test-driven development and version control systems (mainly in python and for computational design) |
| Automation | **Intermediate** |
| | Experienced with workflow automation (mainly in computational design) |

### Technical Skills

| | |
|---|---|
| Python | **Advanced** |
| | Package Development, Scientific Computing, Agent-Based Models, Data Visualization, Geometry Visualization |
| | NumPy, SciPy, Pandas, NetworkX |
| Houdini/VEX | **Advanced** |
| | Generative Systems, Agent-Based Models, Volumetric and Geometric Computation, Physic-Based Simulations, Data Visualization, Geometry Visualization |
| 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, VRay, Vector Rendering |
| Interaction | Intermediate |
| | Unity, Unreal, Vue, Three.js, D3 |

## Languages

| | |
|---|---|
| Farsi | Native |
| English | Fluent |

---

Last updated: July 9, 2020 • shervinazadi.com/p/cv