

[Updated August 2026]

# Ariel Noyman

City Science Center

Media Lab, School of Architecture and Planning (SA+P)

Massachusetts Institute of Technology (MIT)

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## ABOUT

Dr. Ariel Noyman is an urban scientist, architect, and urban designer whose work explores how design and technology can **democratize data-driven urban processes**. Trained and practiced as an architect and urban designer, he bridges urban analytics, simulation, and participatory design across research, practice, and teaching. At MIT, Noyman developed CityScope, an urban human-computer interaction platform for real-time simulation and collaborative planning, deployed in more than twenty cities worldwide. He also helped establish a global network of City Science living laboratories active in over twelve cities. His work has received international recognition, including a European Union UrbanAct Award, first place in Rebuild by Design, and first prize in the Museum of Tolerance design competition. He has published widely and taught urban science, urban design, and architecture design studios at MIT, Cornell, Northeastern University, CUNY, and Bezalel Academy of Arts and Design. He holds a Ph.D. and SM from MIT and a B.Arch, cum laude, from Bezalel Academy.

## Research Areas

*Democratizing Urban Processes:* Data-driven approaches to understanding, designing, and collaborative spatial planning.

*Urban Modeling and Simulation:* Developing urban simulation methods focusing on behavior and experience.

*City Science Living-Labs:* Developing a global network of urban research labs.

## EDUCATION

Ph.D. MIT Media Lab: Media, Arts, and Science, **Massachusetts Institute of Technology**. Dissertation: *CityScope: An Urban Modeling and Simulation Platform*. GPA 5/5. 2017-2022

M.S. Master of Science in Architecture Studies (SMarchS), **Massachusetts Institute of Technology**. Thesis: *Power Structures: the Urban Form of Regulations*. GPA 5/5. 2013-2015

B.Arch Bachelor of Architecture, '**Bezalel**' **Academy of Arts and Design**, Jerusalem. Cum Laude. 2003-2008

## APPOINTMENTS

2022-present **Research Scientist** City Science Center, MIT Media Lab, Cambridge, MA

2026-present **Adjunct Associate Professor** Hunter College, City University of New York, New York, NY

2023-present **Adjunct Asst. Professor** Cornell University, Cornell Tech, New York, NY

2015-2017 **Adjunct Asst. Professor** School of Architecture, Northeastern University, Boston, MA

2013-2014 **Research Assistant** Norman B. Leventhal Center for Advanced Urbanism (LCAU), MIT, Cambridge, MA

2008-2010 **Adjunct Asst. Professor** Bezalel Academy for arts & design, Jerusalem, Israel

## TEACHING

2026-present **Hunter College, City University of New York**

2026 Introduction to Urban Data Science, URBG 710

2023-present **Cornell University - Urban Tech Hub, NYC**

2025 'Street Knowledge: Gowanus Urban Rehabilitation', INFO-5420

2024 'Street Knowledge: Urban Processes & Methodologies', INFO-5420

2015-2022 **MIT Media Lab**

2021 'CityScope Process & Methodologies', MIT City Science Network

2018 MIT Media Lab City Science MAS.552

2017 MIT Media Lab City Science MAS 4.557

2016 MAS.S65 Creative Places | Understanding & Enabling Entrepreneurial & Vibrant Urban Hot Spots

2015 **School of Architecture & Planning, MIT**

2015 Core II Architectural Design Studio with Prof. Rafi Segal

2015-2016 **School of Architecture, Northeastern University**

2016 ARCH7140 Master Thesis Design Studio

2015 ARCH3170 Architecture, Infrastructure, City 4th year Studio

2008-2010 **Bezalel Academy for arts & design, Jerusalem, Israel**

2010 Architectural Design Studio with Prof. Zvi Efrat

2009 Architectural Design Studio with Arch. Erez Ella

2008 Architectural Design Studio with Arch. Gal Tevet

## Short Courses and Workshops

10/2025 'Remote & Local Sensing for Thermal Comfort and Urban Resiliency', Bio-bio Region, Chile

02/2025 'AI for Urban Planning', Urban AI, Paris, France

10/2024 'From Solution to Tools', City Science Summit, Andorra la Vella, Andorra

09/2024 MAS.552 City Science - Transformative Communities, MIT Media Lab, Cambridge, MA

09/2023 MAS.S66 - City Sci-fi: The Design of Ecology Futures, MIT Media Lab, Cambridge, MA

06/2023 'Generative AI for Cities', Bloomberg - Segol Program, Tel-Aviv

11/2020 'Street Knowledge' Workshop, Bezalel Academy for arts & design, Jerusalem, Israel, with MIT Media Lab

10/2019 CityScope Process, KÉK-Hungarian Contemporary Architecture Centre, Budapest

07/2017 CityScope Process, Aalto University, Helsinki

03/2017 CityScope Process, Tongji University, China

05/2016 'Autonomous City', Jerusalem Mayor's Office, Bezalel Academy for arts & design, Jerusalem

## PUBLICATIONS

### Journal Articles and Proceedings [selected]

- 2025 Noyman, Ariel and Kent Larson. *Street Knowledge: A Human-Centered Framework for Urban Digital Twins* Journal of Urban Technology (Under Review).
- 2025 Noyman, Ariel, Kai Hu, and Kent Larson. *TravelAgent: Generative agents in the built environment* Environment and Planning B: Urban Analytics and City Science (2024): 23998083251360458.
- 2024 Noyman, Hu, Larson *Generative-Agents Simulator for Human Behavior Analysis in Design Environments* GAMA Days Conference, 2024
- 2024 Atchade, Mora, Alonso, Grignard, Noyman, et al. *Humanized Agent-based Models: a Framework* Authorea Preprints, 2024
- 2023 Zhuangyuan Fan, Tianyu Su, Maoran Sun, Ariel Noyman, Fan Zhang, Alex 'Sandy' Pentland, Esteban Moro *Diversity beyond density: Experienced social mixing of urban streets* PNAS Nexus, Volume 2, Issue 4, April 2023, pgad077; doi: <https://doi.org/10.1093/pnasnexus/pgad077>
- 2022 Tianyu Su, Maoran Sun, Zhuangyuan Fan, Ariel Noyman, Alex Pentland, Esteban Moro *Rhythm of the streets: A street classification framework based on street activity patterns* EPJ Data Science volume 11, Article number: 43 (2022); <https://hdl.handle.net/1721.1/145128>
- 2022 Ariel Noyman, *CityScope: An Urban Modeling and Simulation Platform* Doctoral Theses - Program in Media Arts and Sciences, Massachusetts Institute of Technology; <https://dspace.mit.edu/handle/1721.1/145128>
- 2021 Ronan Doorley, Alex Berke, Ariel Noyman, Luis Alonso, Josep Ribó, Vanessa Arroyo, Marc Pons, Kent Larson, *Mobility and COVID-19 in Andorra: Country-scale analysis of high-resolution mobility patterns and infection spread* medRxiv 2021.02.18.21251977; doi: <https://doi.org/10.1101/2021.02.18.21251977>
- 2021 Baeza, Jesús López, Julia L. Sievert, André Landwehr, Jonas Luft, Philipp Preuner, Jürgen Bruns-Berentelg, Ariel Noyman, and Joerg Rainer Noennig. "CityScope Platform for Real-Time Analysis and Decision-Support in Urban Design Competitions." International Journal of E-Planning Research (IJEPR) 10, no. 4 (2021): 1-17.
- 2020 Noyman, A., & Larson, K. *DeepScope: HCI Platform for Generative Cityscape Visualization* In Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems (pp. 1–9)
- 2020 Noyman, A., & Larson, K. *A Deep Image of the City: Generative Urban-Design Visualization* In Proceedings of the Symposium on Simulation for Architecture and Urban Design (SimAUD 2020)
- 2019 Doorley, R., Noyman, A., Sakai, Y., & Larson, K. What's your MoCho? Real-time Mode Choice Prediction Using Discrete Choice Models and a HCI Platform In KDD 2019 UrbComp.
- 2019 Doorley, R. and Noyman, A., Xiong, Z., Alonso, L., Grignard, A., & Larson, K. *RevUrb: Understanding Urban Activity and Human Dynamics through Point Process Modelling of Telecoms Data* In Smart Cities Symposium Prague 2019.
- 2019 Noyman, A., Doorley, R., Xiong, L., Grignard, A., & Larson, K. *Reversed Urbanism: Inferring Urban Performance Through Behavioral Patterns In Temporal Telecom Data* Environment and Planning B: Urban Analytics and City Science, 46(8), 1480–1498
- 2018 Grignard, A., Macia, N., Alonso Pastor, L., Noyman, A., Zhang, Y., & Larson, K. *Cityscope andorra: A multi-level interactive and tangible agent-based visualization* In Proceedings of the 17th International Conference on Autonomous Agents and MultiAgent Systems (pp. 1939–1940).
- 2018 Alonso, L., Zhang, Y., Grignard, A., Noyman, A., Sakai, Y., ElKatsha, M., Doorley, R., & Larson, K. *CityScope: a data-driven interactive simulation tool for urban design. Use case volpe* In International Conference on Complex Systems (pp. 253–261).

- 2018 Noyman, A., Sakai, Y., & Larson, K. *CityScopeAR: urban design and crowd-sourced engagement platform* In CHI 2018 CHI Conference on Human Factors in Computing Systems
- 2017 Ariel Noyman, et al *Finding Places: HCI Platform for Public Participation in Refugees' Accommodation Process* In Knowledge-Based and Intelligent Information & Engineering Systems: Proceedings of the 21st International Conference, KES-20176-8 September 2017, Marseille, France (pp. 2463–2472).
- 2017 Noyman, A., Stibe, A., & Larson, K. Roadmap for autonomous cities: Sustainable transformation of urban spaces Americas Conference on Information Systems (AMCIS)At: Boston, MA, USA
- 2016 Noyman, A., Stibe, A., & Larson, K. Autonomous Cities and the Urbanism of the 4th Machine Age: Should AV Industry Design Future Cities Changing Places Research Group, MIT Media Lab, accessed March, 29, 2017.
- 2015 Alrashed, T., Almalki, A., Aldawood, S., Alhindi, T., Winder, I., Noyman, A., Alfari, A., & Alwabil, A. An observational study of usability in collaborative tangible interfaces for complex planning systems *Procedia Manufacturing*, 3, 1974–1980.
- 2015 Noyman, A. *Power/Structures: the Urban Form of Regulations* Massachusetts Institute of Technology

### Book Chapters

- 2021 HafenCity University Hamburg [HCU] and the foundation ZEIT-Stiftung Ebelin und Gerd Bucerius, *Perspectives in Metropolitan Research* JOVIS
- 2021 Raphael Schwegmann / Gesa Ziemer / Jörg Rainer Noennig (Hg.), *Digital City Science. Researching New Technologies in Urban Environments* JOVIS
- 2020 Hubert Beroche, *Urban AI* <https://urban-ai.co>
- 2018 Rafi Segal, *Space Packed: The Architecture of Alfred Neumann* ISBN 9783038600558, 3038600555
- 2018 José Pinto Duarte, *Mass Customization and Design Democratization*, ISBN 9781351117845
- 2015 MIT CAU + ZUS + URBANISTEN with Deltares, 75B, and Volker Infra Design, *New Meadowlands: Productive city + Regional park* <http://www.rebuildbydesign.org/>
- 2010 *What Can We Learn from China? City/state Unit Moving Cities*, ISBN 9789659130405

### PROJECTS

Selected work in urban science, architecture and urban design. For a complete list of projects, please see the **Projects** section of my website and portfolio: <https://arielnoyman.com/>

### MIT Media Lab

- 2015-present **City Science Network:** Helped establish a global network of City Science Labs, including Andorra (2015), Hamburg (2015), Helsinki (2017), Shanghai (2017), Detroit (2019), Ho Chi Minh City (2020), and the Negev (2022).
- 2022-present **Negev Urban Research (NUR)**, an MIT/Israeli Government urban science lab in the Negev region. Initiated the lab, assembled the team, and secured +\$2.5M in government funding.
- 2015-present **HCU CityScience Lab** in Hamburg, Germany - a multi-year cooperation agreement between MIT, the Free and Hanseatic City of Hamburg, and HafenCity Universität Hamburg. Coordinated MIT-HCU research and projects; helped secure +5M EUR in funding.
- 2014-present **MIT CityScope** An urban modeling, simulation, and decision-making platform developed at the MIT City Science Center and deployed internationally.
- 2016 President Obama Council of Advisors on Science and Technology (PCAST), Technology and the Future of Cities Report, p. 24

- 2015-2016 **CityScope FindingPlaces** HCI platform for public participation in refugees' accommodation planning process.
- 2019 FindingPlaces & CityScienceLab at the "City Science Summit", Hamburg, Germany
- 2016 Shifting Priorities, Finding Places | by MIT Media Lab
- 2017 Finding Places: HCI Platform for Public Participation in Refugees' Accommodation Process
- 2018 AR Is Transforming Tech. What Can It Do for Cities?
- 2014-2015 **CityScope BRT For Boston** Interactive urban planning platform for participatory transit design.
- 2015 MIT's New Interactive LEGO Urban Tool Brings Transparency to Transit Planning
- 2015 Centre of Excellence
- 2016 Boston Bus Rapid Transit (BRT) Community Engagement
- 2016 MIT + Nuestra Comunidad BRT LEGO Workshops, Boston BRT
- 2018-2021 **CityScope Grasbrook** Multi-participant platform for design collaboration and evaluation of proposals for HCH and Herzog de Meuron (HdM).
- 2024-2026 **The Right to Shelter** Spatial analysis and collaborative planning tools for expanding bomb-shelter access in marginalized communities using spatial data analysis and machine learning methods.
- 2025 "Innovative algorithm aims to protect Negev Bedouin villages from missile attacks"

#### MIT Center For Advanced Urbanism

- 2013-2014 **Rebuild by Design (RBD)** 'The New Meadowlands': Winning entry for \$150M HUD multistage planning and design competition following hurricane Sandy in the Tri-State area

#### Design Projects

- 2010 **The Museum Of Tolerance, Jerusalem, Israel** with Chyutin Architects. Winning entry for an international competition and design towards construction of a \$260M campus, including two museum exhibitions, a children's museum, conference center, a 500-seat banquet hall, an 800-seat lecture hall, a 1000-seat outdoor amphitheater and two viewing theaters
- 2011 **National Institute for Biotechnology** with Chyutin Architects. National Institute for Biotechnology, Ben-Gurion University, Beer-Sheva, Israel. \$22M academic biotechnology laboratory building. Won 2018 National Design Award, Israel.
- 2009 **The Israeli Museum, Jerusalem** with EK-A.  
*EK-A* "Israel Museum, Jerusalem, Israel"  
*Archdaily* "The Israeli Museum, Jerusalem"
- 2008 **Tel-Aviv City Museum (Beit Hai'r)** A 5000 sqft city museum and a cultural center in Tel-Aviv's old City-Hall building
- 2008 **Ordos100, inner Mongolia, China** with EK-A.  
*New York Times* "In Inner Mongolia, Pushing Architecture's Outer Limits"  
*CNN* "Ordos, the abandoned city that's an architectural marvel"  
*Archdaily* "ORDOS 100 #45: Efrat-Kowalsky Architects"  
*Vancouver Biennale* "Ordos 100"

#### INVITED TALKS & KEYNOTES

- 12/2025 "Street Knowledge" [Keynote] at The 65th Annual Conference of the Geographical Association, Ben Gurion University of the Negev

|         |                                                                                                                   |
|---------|-------------------------------------------------------------------------------------------------------------------|
| 11/2025 | "Generative Agents in the Built Environment" at Cornell Tech, Cornell University, New York, US                    |
| 05/2025 | "Generative Agents in the Built Environment" at NYU Tandon School of Engineering, New York, US                    |
| 04/2025 | "Street Knowledge" at Connected Urban Twins conference, HCU Hamburg, Germany                                      |
| 01/2025 | "City Science Network" at Negev Urban Research, Ben Gurion University of the Negev                                |
| 11/2024 | "Generative ABM" at Keynote, GAMA Days Conference, 2024                                                           |
| 02/2024 | "Digital Twins for City Planning" at MIT Urban Science Panel                                                      |
| 07/2023 | "Street Knowledge" at HaZira Annual Conference, Peres Center - Bloomberg Foundation, Jaffa                        |
| 03/2023 | "Urban Modelling and Simulation" at Foster + Partners, London, UK                                                 |
| 12/2022 | "MIT CityScope" at Urban Tech Fellows, Cornell Tech, NYC, Cornell University                                      |
| 03/2021 | "From Smart Cities to Street Knowledge" at Shenkar College of Engineering, Design and Art, Tel Aviv, Israel       |
| 01/2021 | "City Science" at Technion, Israel Institute of Technology, Department of Architecture                            |
| 06/2020 | "From Smart Cities to Street Knowledge" at B1TS of PUBL1C SPACE, TU Delft                                         |
| 05/2020 | "From Smart Cities to Street Knowledge" at Cal Poly LA Metro, Los Angeles, US                                     |
| 05/2020 | "Cities Without" at City Science Summit, Elbphilharmonie Hamburg, Germany                                         |
| 01/2019 | "From Smart Cities to Street Knowledge" at Bar-Ilan University Center for Smart Cities                            |
| 12/2018 | "From Smart Cities to Street Knowledge" at Presidential Summit - Israel Ministry of Interior Affairs, Lod, Israel |
| 05/2018 | "MIT CityScope: A Consensus Machine" at WIEE, Shanghai, China                                                     |
| 03/2018 | "Autonomous Cities: The urbanism of the 4th industrial revolution" at The Society of Autonomous Vehicles, MIT     |
| 12/2017 | "Old, New Cities" at European Commission Director General, Joint Research Center on City Attractiveness, Brussels |
| 11/2017 | "City Science Network" at Sookmyung University, Seoul, South Korea                                                |
| 09/2017 | "MIT CityScope: 10 Lessons" at City Science Summit, Andorra                                                       |
| 08/2017 | "Future Urban Mobility" at TheMarker Conference                                                                   |
| 02/2017 | "Future Urban Mobility" at Joint Research Center European Commission Talk, EC JRC, Ispra, Italy                   |
| 05/2016 | "MIT City Science" at EU ScienceHub: European Commission Director General, Joint Research Center, Brussels        |
| 05/2016 | "Autonomous Cities" at City Hall, Jerusalem, Israel and Bezalel Academy, Jerusalem                                |
| 05/2016 | "MIT CityScope" at APA National Planning Conference                                                               |
| 01/2016 | "PowerStructures: The Urban Form of Regulation" at HafenCity University, Hamburg                                  |

## DESIGN AWARDS AND COMPETITIONS

|      |                                                                                                                                               |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| 2026 | "A Space of Agreement", <i>Joav Steve Leventer Urban Planning Awards</i> , Innovation in Urban Planning, First Place                          |
| 2019 | "FindingPlaces", <i>European Union UrbanAct Award</i> , International Competition, GOOD PRACTICE                                              |
| 2015 | "New Meadowlands", <i>U.S. Department of Housing and Urban Development (HUD) "Rebuild by Design"</i> , International Competition, First Place |
| 2011 | "Re-Public", <i>The Union of Architects of Russia (UAR)</i> , <i>RIBA</i> , International competition, Finalist                               |
| 2010 | "Station No.5", <i>Berkeley University</i> , <i>SPIHS</i> , <i>Bezalel Academy</i> , <i>IL</i> , International competition, Finalist          |
| 2009 | "The 8th souk", <i>Magazine architecture A2 Dubai</i> , International competition, Third place                                                |
| 2008 | "Tel, Aviv (Aviv's Mountain)", <i>Urban Fantasy: New Ideas for 'Ha'medinah Square'</i> , <i>Tel-Aviv</i> , National competition,              |

|      |                                                                                                        |
|------|--------------------------------------------------------------------------------------------------------|
|      | 2nd place                                                                                              |
| 2008 | "GreenWash", <i>municipality of Porto, Portugal</i> , International competition, Honorable mention     |
| 2007 | "Green/Peace", <i>Ministry of Environmental Protection, Israel</i> , National competition, First place |
| 2006 | "Mosaic", <i>Ministry of Education, Israel</i> , National competition, Third place                     |
| 2006 | "JerusaLame", <i>Bezalel Academy with Akerstein Company</i> , Students Competition, Third place        |
| 2005 | "Septum", <i>'Kolech' Organization, Women Forum for equality</i> , National competition, First place   |

## ACADEMIC GRANTS AND AWARDS

### Massachusetts Institute of Technology, Cambridge, MA

|      |                                                                      |
|------|----------------------------------------------------------------------|
| 2023 | MIT Zuckerman STEM Fund for Faculty Collaboration, \$30K             |
| 2022 | 'Negev Urban Research' Seed Fund (part of Gov. Decision 625), \$2.3M |
| 2017 | Full PhD Departmental Scholarship, \$350K                            |
| 2013 | Full Master Studies fellowship, \$100K                               |

### Bezalel Academy for Arts and Design, Jerusalem, Israel

|      |                                                                              |
|------|------------------------------------------------------------------------------|
| 2008 | Department of Architecture, B.Arch Cum Laude                                 |
| 2008 | History & Theory Department, Magna Cum Laude                                 |
| 2008 | History & Theory Department, Extraordinary Graduate Student                  |
| 2008 | Excellent thesis project, David Azrieli Foundation, Nomination               |
| 2007 | 4th year scholarship for excellence, Department of Architecture              |
| 2007 | Award for excellence in 4th year theory studies, History & Theory Department |
| 2006 | 3rd year scholarship for excellence, Department of Architecture              |
| 2006 | Award for excellence in 3rd year theory studies, History & Theory Department |
| 2005 | 2nd year scholarship for excellence, Department of Architecture              |

## SERVICE

### Peer Reviews

|                  |                                                                            |
|------------------|----------------------------------------------------------------------------|
| 2024             | Springer Nature, Urban Transformations                                     |
| 2023             | Pattern Analysis and Applications                                          |
| 2021             | Journal of ICT Research and Applications                                   |
| 2020             | Journal of Urban Technology                                                |
| 2021             | The ACM Conference on Human Factors in Computing Systems (CHI)             |
| 2019, 2020, 2022 | EPB - Environment and Planning B: Urban Analytics and City Science Journal |
| 2019             | Review Board for Urban Planning (ISSN: 2183-7635)                          |
| 2015-2017        | MIT Media Lab City Science Admissions Committee                            |

### Design Critic

|      |                                                 |
|------|-------------------------------------------------|
| 2025 | Columbia University, GSAPP, Urban Design Studio |
|------|-------------------------------------------------|

2009-2022 Bezalel Academy, Jerusalem, design studio panels

2019 30-Minute City: Urban Design Studio, MIT

2018 California Dreamin': MIT 4.163J / 11.332J Urban Design Studio

2015, 2016, 2018 Northeastern university, various panels

2017 Urbanism After Extraction, MIT 4.163J Urban Design Studio

2016 Harvard GSD, Prof. Alex Krieger, Jerusalem Urban Design Studio

2007-2008 Tel Aviv University, various panels

## Community

2017-present Organizing Committee, annual 'City Science' Summits in Andorra, Hamburg, Bio-Bio, Boston

2019-present Founding Member, 'Urban AI', Paris, France

2020 Mentor, 'In-Vent', the City of Haifa Urban Tech Hackathon

2018 Advisor, 'CityZoom', Israel Smart Cities Community

## EXHIBITIONS

2020 "HIDW Young Talent", Hebei International Industrial Design Week (HIDW), China

2020 "Champs-Élysées — History & Perspectives", Pavillon de L'arsenal, Paris, FR

2019 "FindingPlaces EOG UAE", Edge of Government, World Government Summit Dubai, UAE

2018 "The Road Ahead", NYC Cooper Hewitt Museum

2016 "Andorra Cityscope", Smart City Expo World Congress Barcelona, Spain,

2016 "CityScope & CityIO Participatory Platforms", American Planning Association Phoenix, Arizona

2015 "Space Packing Architecture: The Life and Work of Alfred Neumann", Ostrava, Czech Republic and Wroclaw, Poland,

2014 "CityScope Play/Ground", Autodesk University Las-Vegas

2014 "Rebuild by Design", Featured in New York City, Berlin, AEDES, Copenhagen, Danish Architecture Center, London, Royal Institute of British Architects, New Jersey, Liberty Science Center, San Francisco, SPUR, Boston, Boston Architectural College, Munich, Rotterdam, IABR, Austin, Tx, SXSW Eco, Washington, DC, American Institute of Architects, Atlanta, American Institute of Architects

2011 "Water Towers - New perspectives", Jaffa Harbor Gallery, Israel

2009 "Urban Fantasy", Shalom Tower Gallery, Tel-Aviv, Israel

2008 "Innovative Ideas for Porto Water Tanks", Faculdade de Arquitectura da Universidade do Porto, Portugal

2007 "GreenPeace", Israeli Architecture Association Center, Jaffa, Israel

2005 "Synagogues as Spaces of Equality", The Museum of Israeli Art, Ramat-Gan, Israel

## PROFESSIONAL EMPLOYMENT

2021 **Data Scientist, Predictive Analysis** (Residency), Autodesk, Boston, MA  
Contributed predictive analytics workflows for architecture and urban design applications.

2014 **Architect** (Internship) Kohn Pedersen Fox Associates, NYC

2010-2012 **Project Manager, Architecture** Chyutin architects, Tel-Aviv, Israel

2008-2009     **Project Manager, Architecture** EKA architects, Tel-Aviv, Israel

2006-2008     **Architect**, Margalith Architects and Planners, Jerusalem, Israel

2006-2013     **Founder, Architecture and Design**, AN Studio, Tel-Aviv, Israel and Geneva, Switzerland  
 Led independent design practice with a focus on residential and public projects, including several award-winning designs and international competitions.

## TECHNICAL SKILLS

### *Urban AI & Agent Systems*

OpenAI API, LangChain, LlamaIndex, AutoGPT, Agent frameworks (AgentGPT, Claude), PyTorch, Keras, scikit-learn

### *Urban Simulation*

SUMO, GAMA, Mesa ABM, Unity, Unreal Engine

### *Geospatial Analysis & Mapping*

QGIS, ArcGIS, GeoPandas, CARTO, Kepler.gl, Leaflet, Mapbox, OpenStreetMap, Google Maps API

### *Spatial Computing & Interactive Systems*

Three.js, WebGL, React, Next.js, Vite, Processing

### *Data Science & Scientific Computing*

Python, NumPy, machine learning workflows

### *3D Modeling & Parametric Design*

Rhino/Grasshopper, Blender, SketchUp, Dynamo, 3ds Max

### *Visualization & Rendering*

V-Ray, KeyShot, Maxwell, Lumion, Twinmotion

### *Backend & Cloud Infrastructure*

Node.js, Docker, AWS, Supabase, Firebase

### *Design & Visual Communication*

Adobe Creative Cloud, Figma

## SELECTED MEDIA

2025             *Harvard Business Review*. "How AI Can Help Tackle Collective Decision-Making " [hbr.org](https://hbr.org)

2025             *Urban AI*. "AI Agents in Urban Planning: A New Paradigm for Urban Simulation " [urbanai.fr](https://urbanai.fr)

2023             *MIT News*. "The City Science Network empowers local communities to collaborate globally" [news.mit.edu](https://news.mit.edu)

2023             *MIT Tech Review*. "MIT Technology Review's conference on innovations for a sustainable future" [technologyreview.com](https://technologyreview.com)

2021             *TheMarker (Israel)*. "Eating croissants and shouting at the mayor is not public participation" <https://www.themarker.com/>

2021             *Haaretz (Israel)*. "Bike lanes are not the end of it" <https://www.haaretz.co.il>

2019             *SmartWorld AI*. "CityScope: the AI for an enlightened town planning" <https://smartworld-ai.com>

2019             *Vinci*. "CityScope: AI technology for enlightened urbanism | Leonard, foresight and Innovation by VINCI" <https://leonard.vinci.com/>

2019             *Die Welt*. "Mit Legosteinen Flüchtlingsunterkünfte finden" <https://www.welt.de/>

2019             *TheMarker (Israel)*. "Can autonomous vehicles save us from the perils of Suburbia?" [themarker.com](https://www.themarker.com/)

2018             *Harvard Kennedy School*. "9 Potential Applications for AR and VR Technology" [harvard.edu](https://www.harvard.edu)

2018             *New York Times*. "Building a Connected City From the Ground Up" [nytimes](https://www.nytimes.com)

- 2018 *European Union - TechPlace*. "CityScope: addressing city challenges with digital LEGO! | TechPlace " tech-place.online
- 2018 *La Informacion*. "EL MIT 'SALVA' INMIGRANTES CON FICHAS LEGO: Gracias al big data sabe dónde deben ser situados en una ciudad" lainformacion.com
- 2017 *TheMarker (Israel)*. "The next trend of luxury apartments" <https://www.themarker.com/>
- 2017 *TheMarker (Israel)*. "While everyone waits for the driverless car: Ariel Noyman warns of catastrophe" <https://www.themarker.com/>
- 2017 *Wired*. "Science of Teams: How MIT Media Lab Builds Cities Using Lego and Augmented Reality" <https://www.wired.com/>
- 2016 *GovTech Magazine*. "SimCities: Can City Planning Mistakes Be Avoided Through Data-Driven Simulations?" <https://www.govtech.com/>
- 2015 *Architect Magazine*. "This Week in Tech: MIT Researchers Use Legos to Teach People About Cities" <https://www.architectmagazine.com/>
- 2015 *MIT News*. "New interactive platform for the design of bus rapid transit systems" <http://news.mit.edu/>
- 2015 *Quartz*. "Lego for grown-ups: monochrome set is targeted at architects" <https://qz.com/>
- 2014 *The Guardian*. "Lego: can this most analogue of toys really be a modern urban planning tool?" <https://www.theguardian.com/>

#### Television

- 2019 *Keshet-Mako (Israel)*. "Hands-Off (the Wheel)" <https://www.mako.co.il/>
- 2019 *60 Minutes*. "MIT Media Lab: Making ideas into reality" <https://www.cbsnews.com/>

#### Podcast

- 2025 *The Information Bottleneck*. "Urban Design Meets AI: With Ariel Noyman" <https://www.the-information-bottleneck.com/>
- 2022 *The Urbanists*. "Dr. Ariel Noyman, MIT Media Lab" <https://soundcloud.com/>
- 2019 *OpenOffice Podcast*. "How City Science empowers our future - Ariel Noyman, city science researcher at MIT Media Lab" <https://soundcloud.com/>
- 2018 *EretzFM Radio*. "Ariel Noyman - Interview" <https://soundcloud.com/>

#### Architecture

- 2015 *ArchDaily*. "Space Packing Architecture: The Life and Work of Alfred Neumann" <https://www.archdaily.com/>
- 2012 *ArchDaily*. "Station 5 / Ariel Noyman" <https://www.archdaily.com/>
- 2010 *ArchDaily*. "Museum of Tolerance in Jerusalem" <https://www.archdaily.com/>
- 2010 *ArchDaily*. "ORDOS 100 #45" <https://www.archdaily.com/>
- 2010 *LA Times*. "New designs revealed for Museum of Tolerance in Jerusalem" <https://latimes.com>
- 2011 *ArchDaily*. "Atlantic City Holocaust Memorial proposal", Ariel Noyman and Ruth Kedar, <https://www.archdaily.com/>