[Updated November 2026]

# Ariel Noyman

City Science Center
Media Lab, School of Architecture and Planning (SA+P)
Massachusetts Institute of Technology (MIT)

noyman@mit.edu
arielnoyman.com | media.mit.edu/people/noyman
75 Amherst St, Cambridge, MA 02139

## 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. Noyman contributed to New Meadowlands, one of the 2014 Rebuild by Design winners, and to Hamburg's Finding Places project, which URBACT named a Good Practice in 2017. He was on the Chyutin Architects team that won the 2010 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 Sciences, **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**, Department of Urban Policy and Planning (UPP), Hunter College, City University of New York (CUNY), 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 of Arts and Design, Jerusalem, Israel |

## TEACHING

| | | |
|---|---|---|
| 2026–present | **Department of Urban Policy and Planning (UPP), Hunter College, City University of New York** | |
| | 2026 | Introduction to Urban Data Science, URBG 710 |
| 2023–present | **Cornell University – Urban Tech Hub, Cornell Tech, NYC** | |
| | 2026 | 'Street Knowledge: Gowanus BID – Urban, Environmental, and Political Systems', INFO-5420 |
| | 2025 | 'Street Knowledge: BID as an Urban System', 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 of Arts and 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**

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|---|---|
| 10/2025 | 'Remote & Local Sensing for Thermal Comfort and Urban Resiliency', Biobío 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–Sagol Program, Tel-Aviv |
| 11/2020 | 'Street Knowledge' Workshop, Bezalel Academy of Arts and 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 of Arts and Design, Jerusalem |

## PUBLICATIONS

**Journal Articles and Proceedings [selected]**

2026 Noyman, A., & Larson, K. *Street Knowledge: A Human-Centered Framework for Urban Digital Twins.* Journal of Urban Technology (Accepted, forthcoming).

2026 Noyman, A. *Gridnberg: A Topography-Aware Pedestrian Routing Dataset for New York City.* arXiv preprint arXiv:2607.22523 (2026). doi: 10.48550/arXiv.2607.22523

2026 Noyman, A., Hu, K., & Larson, K. *TravelAgent: Generative Agents in the Built Environment.* Environment and Planning B: Urban Analytics and City Science, 53(2), 377–397 (2026; online 2025). doi: 10.1177/23998083251360458

2025 Hu, K., Atchadé-Adelomou, P., Adornetto, C., Mora-Carrero, A., Alonso-Pastor, L., Noyman, A., Liu, Y., & Larson, K. *Graph RAG as Human Choice Model: Building a Data-Driven Mobility Agent with Preference Chain.* arXiv preprint arXiv:2508.16172 (2025). doi: 10.48550/arXiv.2508.16172

2025 Atchadé-Adelomou, P., Mora, A., Alonso-Pastor, L., Grignard, A., Noyman, A., et al. *Humanized Agent-based Models: A Framework.* TechRxiv Preprint (2025). doi: 10.36227/techrxiv.172349445.53365209

2024 Noyman, A., Hu, K., & Larson, K. *Generative-Agents Simulator for Human Behavior Analysis in Design Environments.* GAMA Days Conference (2024).

2023 Fan, Z., Su, T., Sun, M., Noyman, A., Zhang, F., Pentland, A., & Moro, E. *Diversity beyond density: Experienced social mixing of urban streets.* PNAS Nexus, 2(4), pgad077 (2023). doi: 10.1093/pnasnexus/pgad077

2022 Su, T., Sun, M., Fan, Z., Noyman, A., Pentland, A., & Moro, E. *Rhythm of the streets: A street classification framework based on street activity patterns.* EPJ Data Science, 11, Article 43 (2022). doi: 10.1140/epjds/s13688-022-00355-5

2022 Doorley, R., Berke, A., Noyman, A., Alonso, L., Ribó, J., Arroyo, V., Pons, M., & Larson, K. *Mobility and COVID-19 in Andorra: Country-Scale Analysis of High-Resolution Mobility Patterns and Infection Spread.* IEEE Journal of Biomedical and Health Informatics, 26(1), 183–193 (2022). doi: 10.1109/JBHI.2021.3121165

2022 Noyman, A. *CityScope: An Urban Modeling and Simulation Platform.* Doctoral Dissertation, Program in Media Arts and Sciences, Massachusetts Institute of Technology (2022). dspace.mit.edu/handle/1721.1/145128

2021 López Baeza, J., Sievert, J. L., Landwehr, A., Luft, J., Preuner, P., Bruns-Berentelg, J., Noyman, A., & Noennig, J. R. *CityScope Platform for Real-Time Analysis and Decision-Support in Urban Design Competitions.* International Journal of E-Planning Research (IJEPR), 10(4), 1–17 (2021).

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). doi: 10.1145/3334480.3382809

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 an HCI Platform.* In KDD 2019 Workshop on Urban Computing (UrbComp).

2019 Doorley, R., 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, Z., Alonso, 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 (2019). doi: 10.1177/2399808319840668

2018 Grignard, A., Macià, 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 (AAMAS, 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 Conference on Human Factors in Computing Systems.

2017 Noyman, A., Holtz, T., Kröger, J., Noennig, J. R., & Larson, K. *Finding Places: HCI Platform for Public Participation in Refugees' Accommodation Process.* In Knowledge-Based and Intelligent Information & Engineering Systems (KES-2017, 6–8 September 2017, Marseille, France), Procedia Computer Science, 112, 2463–2472.

2017 Noyman, A., Stibe, A., & Larson, K. *Roadmap for Autonomous Cities: Sustainable Transformation of Urban Spaces.* In Americas Conference on Information Systems (AMCIS), Boston, MA (2017).

2016 Noyman, A., Stibe, A., & Larson, K. *Autonomous Cities and the Urbanism of the 4th Machine Age: Should the AV Industry Design Future Cities?* Changing Places Research Group, MIT Media Lab (2016).

2015 Alrashed, T., Almalki, A., Aldawood, S., Alhindi, T., Winder, I., Noyman, A., Alfaris, A., & Alwabil, A. *An Observational Study of Usability in Collaborative Tangible Interfaces for Complex Planning Systems.* Procedia Manufacturing, 3, 1974–1980 (2015).

2015 Noyman, A. *Power/Structures: The Urban Form of Regulations.* Master's Thesis (SMarchS), Department of Architecture, Massachusetts Institute of Technology (2015). hdl.handle.net/1721.1/99301

**Book Chapters**

2021 López Baeza, J., Noennig, J. R., Weber, V., Grignard, A., Noyman, A., Larson, K., et al. "Optimising Cruise Passenger Flow Using ABM: First Steps towards an Urban Digital Twin." In Raphael Schwegmann, Gesa Ziemer, & Jörg Rainer Noennig (Eds.), *Digital City Science: Researching New Technologies in Urban Environments* (*Perspectives in Metropolitan Research*, Vol. 6, pp. 30–43). JOVIS

2020 López Baeza, J., Noennig, J. R., Weber, V., Grignard, A., Noyman, A., Larson, K., Saxe, S., & Baldauf, U. "Mobility Solutions for Cruise Passenger Transfer: An Exploration of Scenarios Using Agent-Based Simulation Models." In *Towards User-Centric Transport in Europe 2* (pp. 89–101), Springer.

2020 Hubert Beroche (Ed.), *Urban AI*. urban-ai.co

2018 Rafi Segal, *Space Packed: The Architecture of Alfred Neumann*. ISBN 9783038600558

2018 José Pinto Duarte & Branko Kolarevic (Eds.), *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*. 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: 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 over 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

2026 **Beyond the Rulebook:** Agent-based and cognitive-network spatial simulations in GAMA exploring model-guided pedestrian decisions under uncertainty across subway station and MIT campus accessibility studies.

2026 Project Documentation & Recorded Simulations

2026 **Gridnberg:** Topography-aware pedestrian routing dataset and interactive web application for New York City enriching over 313,000 sidewalk segments with elevation and slope-sensitive accessibility costs.

2026 Gridnberg Interactive Routing Web App

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”

2024–2025 **TravelAgent:** Generative-agent simulation platform for modeling pedestrian wayfinding, spatial experience, and human-like decision-making in 3D urban environments.

2025 TravelAgent Project Page & Interactive Demos

2018–2021 **CityScope Grasbrook:** Multi-participant platform for design collaboration and evaluation of proposals for HCH and Herzog & de Meuron (HdM).

2015–2016 **CityScope FindingPlaces:** HCI platform for public participation in refugees’ accommodation planning process.

2019 FindingPlaces & CityScienceLab at the “City Science Summit”, Hamburg, Germany

2018 AR Is Transforming Tech. What Can It Do for Cities?

2017 Finding Places: HCI Platform for Public Participation in Refugees’ Accommodation Process

2016 Shifting Priorities, Finding Places | MIT Media Lab

2014–2015 **CityScope BRT for Boston:** Interactive urban planning platform for participatory transit design.

2016 Boston Bus Rapid Transit (BRT) Community Engagement

2016 MIT + Nuestra Comunidad BRT LEGO Workshops, Boston BRT

2015 MIT’s New Interactive LEGO Urban Tool Brings Transparency to Transit Planning

2015 BRT+ Centre of Excellence

**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**

2010–2019 **National Institute for Biotechnology in the Negev (NIBN)** with Chyutin Architects, Ben-Gurion University, Be’er Sheva, Israel. $22M academic biotechnology laboratory building. Winner of the 2018 Israeli Design Award (Ot Haltzuv).

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 1,000-seat outdoor amphitheater, and two viewing theaters.

2009 **The Israel Museum, Jerusalem** with EK-A.

*EK-A* "The Israel Museum, Jerusalem"

*ArchDaily* "Israel Museum / James Carpenter Design Associates"

2008 **Tel-Aviv City Museum (Beit Ha'ir)** with EK-A. A 5,000 sq ft city museum and cultural center in Tel-Aviv's historic City Hall building.

2008 **Ordos 100, 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

11/2026 "Emergence: Emergency Response Platforms for Cities Under Stress" at City Science Summit, Donostia–San Sebastián, Gipuzkoa, Spain

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

11/2025 "Generative Agents in the Built Environment" at Urban Tech Summit, Cornell Tech, Cornell University, New York, NY

05/2025 "Generative Agents in the Built Environment" at NYU Tandon School of Engineering, New York, NY

04/2025 "Street Knowledge: Democratizing Data-Driven Urban Design" at Connected Urban Twins Conference, HCU Hamburg, Germany

02/2025 "AI Agents and Urban Planning" at Urban AI Conversation #22, Urban AI

01/2025 "City Science Network" at Negev Urban Research, Ben-Gurion University of the Negev

11/2024 "Generative ABM" [Keynote] at GAMA Days Conference, 2024

02/2024 "Digital Twins for City Planning" at MIT Urban Science Panel

10/2023 "City Science Lab @ Negev" at Global Cities, Local Solutions, Negev School of Architecture, SCE, Be'er Sheva, Israel

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, Cornell University, New York, NY

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, CA

10/2019 "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 Directorate-General, Joint Research Centre 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 Centre, European Commission, Ispra, Italy

05/2016 “MIT City Science” at EU ScienceHub: European Commission Directorate-General, Joint Research Centre, Brussels

05/2016 “Autonomous Cities” at City Hall, Jerusalem, Israel and Bezalel Academy of Arts and Design, Jerusalem

05/2016 “MIT CityScope” at APA National Planning Conference

01/2016 “Power/Structures: The Urban Form of Regulations” at HafenCity University, Hamburg

## DESIGN AWARDS AND COMPETITIONS

2026 “A Space of Agreement”, *Joav Steve Leventer Urban Planning Awards*, Innovation in Urban Planning, First Place

2018 “National Institute for Biotechnology in the Negev”, *Israeli Design Award (Ot HaItzuv)*, Public Buildings (with Chyutin Architects), Winner

2017 “FindingPlaces”, *URBACT, Hamburg*, Good Practice label

2014 “New Meadowlands”, *U.S. Department of Housing and Urban Development (HUD) “Rebuild by Design”*, International Competition, One of six winning proposals

2011 “Re-Public”, *The Union of Architects of Russia (UAR), RIBA*, International Competition, Honorable Mention

2010 “The Museum of Tolerance, Jerusalem”, *International Design Competition* (with Chyutin Architects), First Place

2010 “Station No. 5”, *UC Berkeley, SPIHS, Bezalel Academy, Israel*, International Competition, Finalist

2009 “The 8th Souk”, *2A Magazine Du(b)ailities Competition, Dubai*, International Competition, Third Place

2009 “Tel, Aviv (Aviv’s Mountain)”, *Urban Fantasy: New Ideas for Ha’Medina Square, Tel-Aviv*, Exhibition public vote, Second Place

2008 “GreenWash”, *Municipality of Porto, Portugal*, International Competition, Honorable Mention

2007 “Green Piece”, *Ministry of Environmental Protection, Israel*, National Competition, First Place

2006 “Mosaic”, *Ministry of Education, Israel*, National Competition, Third Place

2006 “JerusaLame”, *Bezalel Academy with Akerstein Company*, Student Competition, Third Place

2005 “Septum”, *Kolech Organization, Women’s Forum for Equality*, 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), $2.5M

2017 Full Ph.D. Departmental Scholarship, $350K

2013 Full Master Studies Fellowship, $100K

**Bezalel Academy of 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*

2019–2022 *Environment and Planning B: Urban Analytics and City Science* (2019, 2020, 2022)

2021 The ACM Conference on Human Factors in Computing Systems (CHI)

2021 *Journal of ICT Research and Applications*

2020 *Journal of Urban Technology*

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 of Arts and Design, Jerusalem, design studio panels

2019 30-Minute City: Urban Design Studio, MIT

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

2015–2018 Northeastern University, various studio panels (2015, 2016, 2018)

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**

2019–present Founding Member, Urban AI, Paris, France

2017–present Organizing Committee, annual City Science Summits in Andorra, Hamburg, Biobío, Boston, Gipuzkoa

2020 Mentor, ‘In-Vent’, 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, France

2019 “FindingPlaces EOG UAE”, Edge of Government, World Government Summit, Dubai, UAE

2018 “The Road Ahead”, Cooper Hewitt, Smithsonian Design Museum, New York, NY

2016 “Andorra CityScope”, Smart City Expo World Congress, Barcelona, Spain

2016 “CityScope & CityIO Participatory Platforms”, American Planning Association, Phoenix, AZ

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, NV

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), and 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 “Green Piece”, 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, New York, NY

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.

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

## TECHNICAL SKILLS

*Urban AI & Agent Systems*
LLM APIs (OpenAI, Anthropic Claude), Graph RAG, Multi-Agent Frameworks (LangChain, LlamaIndex), Local/Open-Weights LLMs, 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

2026 *The Observer*. "Grand Theft Auto VI is a vast new sandbox for scientists" observer.co.uk

2025 *The Architect's Newspaper*. "The 2025 Urban Tech Summit continues to promote forward-looking discussions" archpaper.com

2025 *Harvard Business Review*. "How AI Can Help Tackle Collective Decision-Making" hbr.org

2025 *Ynetnews*. "Innovative algorithm aims to protect Negev Bedouin villages from missile attacks" ynetnews.com

2025 *Urban AI*. "AI Agents in Urban Planning: A New Paradigm for Urban Simulation" medium.com

2023 *MIT News*. "The City Science Network empowers local communities to collaborate globally" news.mit.edu

2023 *MIT Technology Review*. "MIT Technology Review's conference on innovations for a sustainable future" technologyreview.com

2021 *TheMarker (Israel)*. "Eating croissants and shouting at the mayor is not public participation" themarker.com

2021 *Haaretz (Israel)*. "Bike lanes are not the end of it" haaretz.co.il

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

2019 *Vinci*. "CityScope: AI technology for enlightened urbanism | Leonard, Foresight and Innovation by VINCI" leonard.vinci.com

2019 *TheMarker (Israel)*. "Can autonomous vehicles save us from the perils of Suburbia?" themarker.com

2018 *Curbed*. "The future of urban mobility will be shaped by these six issues" curbed.com

2018 *Bloomberg CityLab*. "AR Is Transforming Tech. What Can It Do for Cities?" bloomberg.com

2018 *Harvard Kennedy School*. "9 Potential Applications for AR and VR Technology" harvard.edu

2018 *The New York Times*. "Building a Connected City From the Ground Up" nytimes.com

2018 *European Union – TechPlace*. "CityScope: addressing city challenges with digital LEGO!" techplace.online

2018 *La Información*. "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" themarker.com

2017 *TheMarker (Israel)*. "While everyone waits for the driverless car: Ariel Noyman warns of catastrophe"

themarker.com

2017 *Wired*. “Science of Teams: How MIT Media Lab Builds Cities Using Lego and Augmented Reality” wired.com

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