



# Justin Booz

## Education

2025 - present

### Candidate, Doctor of Sciences, Geomatic Engineering

ETH Zürich, Department of Civil, Environmental and Geomatic Engineering, Zürich, Switzerland

2020 - 2021, 2022 - 2025

### Dual Master of Landscape Architecture // Master of Design Studies: Mediums (computational design)

Harvard University, Graduate School of Design, Cambridge, Massachusetts, USA

*Distinction*

2016 - 2020

### Bachelor of Arts, Architecture

Columbia University in the City of New York, New York, NY, USA

*magna cum laude*

## Experience

2025 - present

### Scientific Assistant, Planning of Landscape and Urban Systems (PLUS)

ETH Zürich, Institute for Spatial and Landscape Development (IRL), Zürich, Switzerland

2021 - 2025

### Research Assistant, Harvard University, Cambridge, MA: Office for Urbanization (Waldheim), Craig Douglas

AI development, sensor design and prototyping, simulations and modeling, drawings and renderings, archival research

2021 - 2025

### Landscape Designer, Studio Zewde, New York, NY

notable projects: Chalet Africain (CH), Dia: Beacon (USA), Bal Harbor Shops (USA), Miller Prize (USA), more available on request

2024 - 2025

### Designer and Research Assistant, Responsive Environments and Artifacts Lab/NVIVIA, Cambridge, MA

narrative development and drawings

2019 - 2020

### Technical Intern, Mayor Bill De Blasio, Office of Environmental Remediation, New York, NY

site analysis, documentation, research, social media

2016 - 2019

### Graphic Designer, Columbia University, New York, NY: Office of Global Programs, Columbia College, Community Impact

visual communications material, copywriting, editing, transcription

2013 - 2015

### Advisory Board Member (appointed), Greenheart International, Chicago, IL

non-profit organization; pedagogical support for Camp Greenheart, urban agriculture networking, Oxfam guidance and collaboration

2012 - 2015

### Co-Founder and Director (elected), The Cooperation Operation, Chicago, IL

non-profit organization and urban farm; responsibilities: leadership, design, construction, fundraising, public relations, communications

## Teaching

2026

### Teaching Assistant, ETH Zürich, D-BAUG, Zürich, CH

Landscape Aesthetics (Rodewald), Qualiscapes (Utrecht)

2025

### Workshop Instructor, University of Cincinnati, College of Design, Architecture, and Planning, Cincinnati, OH

Smart City Design with AI, Topic: Introduction to classifier models in python and ArcGIS

2021 - 2025

### Teaching Assistant, Harvard University, Graduate School of Design, Cambridge, MA

MLA Thesis (Waldheim); Atmospheric Encounters, LA Core II, and Rep II (Douglas); Digital Media Workshop (Dept. of LA)

2022 - Present

### Visiting Design Review Critic

Harvard University; Columbia University; Paris School of Architecture; ETH Zürich; Università della Svizzera italiana

## Technical Abilities

Computational Systems—AI

*End-to-end design of AI-augmented spatial pipelines; model selection, evaluation, and failure analysis*

Human–AI Interaction

*Human-in-the-loop workflows; interpretability, uncertainty, and decision-oriented model outputs*

Spatial Computing—GIS

*Advanced geospatial analysis and automation; large-scale raster/vector workflows and representations*

3D Scene Representation

*Photogrammetry, LiDAR, Gaussian splatting, NeRFs; multi-modal spatial reconstruction*

Simulation—Modeling

*Atmospheric, hydrological, thermal, and landscape process modeling; data-coupled simulation*

Programming—Workflows

*Advanced Python; C++, C#, R; modular, reproducible research and production code*

Sensing—Physical Computing

*Sensor design, electronics, PCB, IoT, and field deployment; data-model integration*

Visualization—Immersion

*Interactive visualization and simulation using game engines and rendering pipelines*

Fabrication—Prototyping

*Digital and analog fabrication; translation between computational and physical systems*

Environmental Field Analysis

*Soils, water, and topographic diagnostics; field validation and interpretation*

## Languages

English

*Native*

French

*Fluent, C1*

German

*Beginner, A2*

## Research // Publications

2026	Cool Forest: Trees as Atmospheric Infrastructure and an Atmospheric Commons, <i>Journal of Digital Landscape Architecture</i>
2025	<i>A Low-Cost Heat-Pulse Sap Flow System for Quantifying and Communicating Tree Water-Use Dynamics</i> , <i>ESA Annual Meeting</i> , Co-author
2025	<i>Pyrotechnics: Implementation of Artificial Intelligence in the Design of Post-Disaster Landscapes</i> , <i>ACADIA Journal of Architectural Computing</i>
2025	<i>Sensing the Living City: A Scalable Platform for Monitoring the Electrophysiology of Urban Forests</i> , <i>Journal of Digital Landscape Architecture</i>
2025	<i>A Machine Learning Model to Identify Historic Wetlands in an Area of Critical Environmental Concern</i> , <i>Journal of Digital Landscape Architecture</i>
2023	<i>Claiborne Avenue Research</i> (New Orleans, LA), presented to the Emerson Collective
2019	<i>Urban Eco-Acoustics May Drive Passerine Speciation</i> , <i>Department of Ecology, Evolution, and Environmental Biology (Columbia)</i>
2019	<i>The Impact of Freshwater Runoff and Eutrophication in Tala Bay</i> , Gulf of Aqaba, Jordan, <i>Department of Sustainable Development (Columbia)</i>

## Lectures // Exhibitions

2026	<i>Landscape Architecture and Artificial Intelligence</i> , <i>School of Planning Lecture Series</i> , University of Cincinnati, Cincinnati, USA (2/2026)
2026	<i>Pixel Earth: Planetary Data in the Age of AI</i> , <i>Department of Architecture, University of Hawi'i, Honolulu, USA</i> (4/2026)
2025	<i>Sensing the Living City: A Scalable Platform for Monitoring the Electrophysiology of Urban Forests</i> , <i>JoDLA Conference</i> , Dessau, Germany
2025	<i>A Machine Learning Model to Identify Historic Wetlands in an Area of Critical Environmental Concern</i> , <i>JoDLA Conference</i> , Dessau, Germany
2025	<i>Digital Tools and the Future of Landscape Architecture: Exploring New Frontiers</i> , <i>Panel</i> , <i>International Federation of Landscape Architects</i>
2025	<i>Landscape Architecture in the Age of Planetary Computation</i> , <i>School of Planning Lecture Series</i> , University of Cincinnati, Cincinnati, USA
2025	<i>Cool Forest</i> , collaboration with SCAPE, <i>Venice Biennale 2025</i> , Venice, Italy
2022	<i>Dia: Beacon Design Drawings</i> (with Studio Zewdel), <i>Group Exhibition</i> , Dia: Chelsea, New York, NY

## Awards, Grants, Fellowships

2025	<b>MDes: Mediums Domain Prize</b> , Harvard GSD
	Award honoring critical innovation in representational, computational, and material practices.
2025	<b>Norman T. Newton Prize</b> , Harvard GSD, <i>Department of Landscape Architecture</i>
	Award recognizing outstanding visual, spatial, and conceptual clarity in the communication of landscape ideas and processes.
2024	<b>Dean's Scholar</b> , <i>Master of Design Studies: Mediums</i> , Harvard GSD
	Full scholarship acknowledging achievement and intellectual leadership within the graduate programs of Harvard.
2023	<b>Penny White Project Fund Grantee</b> , Harvard GSD
	Grant supporting independent design research beyond the standard curriculum.
2020	<b>Dean's Scholar</b> , <i>Master of Landscape Architecture</i> , Harvard GSD
2019	<b>Columbia Global Scholar</b> , <i>Columbia University in the City of New York</i>
	Award supporting globally engaged research, recognizing projects that address international, cross-cultural, or transnational issues.
2018	<b>Beesen Global Research Fellow</b> , <i>Columbia University in the City of New York</i>
	Fellowship award supporting original international research.
2018	<b>Center for French and Francophone Studies Fellow</b> , <i>Columbia University in the City of New York</i>
	Fellowship supporting interdisciplinary work across humanities, design, and social inquiry related to French and Francophone cultures.
2016	<b>Full Merit Scholarship</b> , <i>Columbia University in the City of New York</i>

## Avocations // Hobbies

Since 2020	Cross-country and trail running
Since 2010	Cycling and bicycle repair
Since 2009	Mycology
Since 2008	Circuit bending and new media art
Since 2006	Cooking and slow food preparation
Since 2006	Gardening, small-scale agriculture, and horticulture

## Press

Cochran, Sam. 2024. "Tour an Out of This World Home in the Swiss Alps." *Architectural Digest*. December 4, 2024.

Alexander, Tieg. "The Coop Op Transforms Toxic Waste Site into Community Garden." *Greenheart Transforms* 1 January 2014: 1-2. Online.

Bellware, Kim. "Cooperation Operation Turns Former Toxic Waste Site Into Pullman Community Garden." *Huffington Post* 19 August 2013: 1-2. Online.

Cynic, Aaron. "Coop Op Transforms a Vacant Lot in South Chicago." *The Christian Science Monitor*. *The Christian Science Monitor*, 01 Nov. 2013. Web. 14 Dec. 2013.

Goldhammer, Zachary. "In Pullman, The Sunflower Also Rises." *Chicago Weekly* 25 April 2013: 1-3. Online. Goldhammer's article also appears on *City Farmer News*.

Jones, Sylvia L. "Coop Op' Turns Pullman Eyesore into Community Asset." *ABC7 Chicago*. ABC7 News, 30 Aug. 2014.

Maher, Sean. "BEST ECOLOGICAL ARK: Cooperation Operation" *Southside Weekly* 25 September 2013: Print.

Pfeifer, Jamison. "The Pullman Punk Ethic." *Chicago Weekly* 1 March 2013: 1-2. Online.

Richardson, Whitney. "Chicago 'Cooperation Operation' to Transform South Side Lot into Creative Farm-scape." *Agrarian Trust* 4 May 2013: 1-2. Online.

Sánchez, Erika L. "Pullman Residents Turn Former Toxic Waste Site into Community Garden." *DNAinfo Chicago* 19 August 2013: 1-3. Online.

Saunders, Luke. "Bumper Crop in Food Desert." *Grinnell Review* 2 January 2014: 1. Online.

Vogel, Erin. "Cooperation Operation Fights Food Desert in South Side Neighborhood." *RedEye* 22 July 2013: 1-3. Online. Vogel's article also appears in *The Sun Sentinel*.

## References

Available upon request