



Justin Booz

Education

2025 - present

Candidate, Doctor of Sciences, Geomatic Engineering

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

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

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

Distinction

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

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

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

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

narrative development and drawings

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

site analysis, documentation, research, social media

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

visual communications material, copywriting, editing, transcription

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

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

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 (Urech)

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

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)

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

Lectures // Exhibitions

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

Awards, Grants, Fellowships

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

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 horticulure

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