Geoff Boeing

Department of Urban Planning and Spatial Analysis
Sol Price School of Public Policy
University of Southern California

Email: boeing@usc.edu
Phone: +1 213 740 2773
Web: https://geoffboeing.com/

EDUCATION

Ph.D. City and Regional Planning, University of California, Berkeley, 2017

M.S. Information Management, Arizona State University, 2006

B.S. Computer Information Systems *summa cum laude*, Arizona State University, 2004

ACADEMIC APPOINTMENTS

2019– University of Southern California
Assistant Professor, Department of Urban Planning and Spatial Analysis

2018–19 Northeastern University
Assistant Professor, School of Public Policy and Urban Affairs
Faculty Affiliate, Network Science Institute
Faculty Affiliate, Global Resilience Institute
Core Faculty, NU Lab for Texts, Maps, and Networks

2017–18 University of California, Berkeley
Postdoctoral Research Fellow, Department of City and Regional Planning

RESEARCH AREAS

Urban informatics and spatial data science: computational statistics, visualization, and spatial analysis

Transportation planning: access, equity, street network design, and urban form

Housing: emerging technology platforms' impacts on markets, residential mobility, and segregation

PUBLICATIONS

Articles in Peer-Reviewed Journals

2020 Boeing, G. "Online Rental Housing Market Representation and the Digital Reproduction of Urban Inequality." *Environment and Planning A: Economy and Space* 52 (2), 449–468. doi:10.1177/0308518X19869678

2020 Boeing, G., M. Besbris, A. Schachter, and J. Kuk. "Housing Search in the Age of Big Data: Smarter Cities or the Same Old Blind Spots?" *Housing Policy Debate* published online before print. doi:10.1080/10511482.2019.1684336

2020 Boeing, G., J. Wegmann, and J. Jiao. "Rental Housing Spot Markets: How Online Information Exchanges Can Supplement Transacted-Rents Data." *Journal of Planning Education and Research* published online before print. doi:10.1177/0739456X20904435.

2020 Boeing, G. "Urban Street Network Analysis in a Computational Notebook." *Region: Journal of the European Regional Science Association* 6 (3), 39–51. doi:10.18335/region.v6i3.278.

2019 Kang, W., T. Oshan, L. J. Wolf, G. Boeing, V. Frias-Martinez, S. Gao, A. Poorthuis, and W. Xu. "A Roundtable Discussion: Defining Urban Data Science." *Environment and Planning B: Urban Analytics and City Science* 46 (9), 1756–1768. doi:10.1177/2399808319882826

2019 Boeing, G. "Urban Spatial Order: Street Network Orientation, Configuration, and Entropy." *Applied Network Science* 4 (1), 67. doi:10.1007/s41109-019-0189-1

2019 Boeing, G. "Spatial Information and the Legibility of Urban Form: Big Data in Urban Morphology." *International Journal of Information Management* published online before print. doi:10.1016/j.ijinfomgt.2019.09.009

2019 Boeing, G. "Street Network Models and Measures for Every US City, County, Urbanized Area, Census Tract, and Zillow-Defined Neighborhood." *Urban Science* 3 (1), 28. doi:10.3390/urbansci3010028

2019 Padgham, M., G. Boeing, D. Cooley, N. Tierney, M. Sumner, T. Phan, and R. Beare. "An Introduction to Software Tools, Data, and Services for Geospatial Analysis of Stroke Services." *Frontiers in Neurology* 10, 743. doi:10.3389/fneur.2019.00743

2018 Boeing, G. "Planarity and Street Network Representation in Urban Form Analysis." *Environment and Planning B: Urban Analytics and City Science* published online before print. doi:10.1177/2399808318802941

2018 Boeing, G. "Measuring the Complexity of Urban Form and Design." *Urban Design International* 23 (4), 281–292. doi:10.1057/s41289-018-0072-1

2018 Boeing, G. "A Multi-Scale Analysis of 27,000 Urban Street Networks: Every US City, Town, Urbanized Area, and Zillow Neighborhood." *Environment and Planning B: Urban Analytics and City Science* published online before print. doi:10.1177/2399808318784595

2018 Boeing, G. "Estimating Local Daytime Population Density from Census and Payroll Data." *Regional Studies, Regional Science* 5 (1), 179–182. doi:10.1080/21681376.2018.1455535

2018 Boeing, G. "The Effects of Inequality, Density, and Heterogeneous Residential Preferences on Urban Displacement and Metropolitan Structure: An Agent-Based Model." *Urban Science* 2 (3), 76. doi:10.3390/urbansci2030076

2018 Boeing, G. "Pynamical: Model and Visualize Discrete Nonlinear Dynamical Systems, Chaos, and Fractals." *Journal of Open Source Education* 1 (1), 15. doi:10.21105/jose.00015

2017 Boeing, G. "OSMnx: New Methods for Acquiring, Constructing, Analyzing, and Visualizing Complex Street Networks." *Computers, Environment and Urban Systems* 65, 126–139. doi:10.1016/j.compenvurbsys.2017.05.004

2017 Boeing, G. and P. Waddell. "New Insights into Rental Housing Markets across the United States: Web Scraping and Analyzing Craigslist Rental Listings." *Journal of Planning Education and Research* 37 (4), 457–476. doi:10.1177/0739456X16664789

2017 Boeing, G. "OSMnx: A Python Package to Work with Graph-Theoretic OpenStreetMap

Street Networks." *Journal of Open Source Software* 2 (12), 1. doi:10.21105/joss.00215

2016 Boeing, G. "Honolulu Rail Transit: International Lessons from Barcelona in Linking Urban Form, Design, and Transportation." *Planext* 2, 28–47. doi:10.17418/planext.2016.3vol.02

2016 Boeing, G. "Visual Analysis of Nonlinear Dynamical Systems: Chaos, Fractals, Self-Similarity, and the Limits of Prediction." *Systems* 4 (4), 37. doi:10.3390/systems4040037

2014 Boeing, G., D. Church, H. Hubbard, J. Mickens, and L. Rudis. "LEED-ND and Livability Revisited." *Berkeley Planning Journal* 27 (1), 31–55. doi:10.5070/BP327124500

Journal Article Manuscripts Under Review

2020 Boeing, G. "Off the Grid... and Back Again? The Recent Evolution of American Street Network Planning and Design." Revise and resubmit at *Journal of the American Planning Association*.

2020 Boeing, G. "The Right Tools for the Job: The Case for Applied Spatial Science Tool-Building." Revise and resubmit at *Transactions in GIS*.

Book Chapters

2019 Boeing, G. "The Morphology and Circuity of Walkable and Drivable Street Networks." In: *The Mathematics of Urban Morphology* (pp. 271–287), edited by L. D'Acci. Basel, Switzerland: Birkhäuser. doi:10.1007/978-3-030-12381-9_12

2019 Padgham, M., G. Boeing, D. Cooley, N. Tierney, M. Sumner, T. Phan, and R. Beare. "An Introduction to Software Tools, Data, and Services for Geospatial Analysis of Stroke Services." In: *Geospatial and Transport Modeling in Stroke Service Planning* (pp. 93–105), edited by T. Phan, R. Beare, and N. Kamal. Lausanne, Switzerland: Frontiers Media. doi:10.3389/978-2-88963-239-8

2017 Barajas, J. M., G. Boeing, and J. Wartell. "Neighborhood Change, One Pint at a Time: The Impact of Local Characteristics on Craft Breweries." In: *Untapped: Exploring the Cultural Dimensions of Craft Beer* (pp. 155–176), edited by N. G. Chapman, J. S. Lellock, and C. D. Lippard. Morgantown, WV: West Virginia University Press. doi:10.31235/osf.io/v88hh

Conference Proceedings/Compendia

2019 Boeing, G. "Street Network Patterns, Orientation, and Entropy around the World." Compendium of the Transportation Research Board 98th Annual Meeting. Washington, DC. Jan 13–17. https://trid.trb.org/view/1573315

2018 Boeing, G. "The Relative Circuity of Walkable and Drivable Urban Street Networks." Compendium of the Transportation Research Board 97th Annual Meeting. Washington, DC. Jan 7–11. https://trid.trb.org/view/1495502

Edited Articles and Reviews

2018 Boeing, G. "Automated Street Network Analysis for Urban Planners with OSMnx." *Planning and Technology Today* 117 (Spring), 10–11. doi:10.31235/osf.io/mkbp3

2017 Boeing, G. "A Review of the Structure and Dynamics of Cities: Urban Data Analysis and Theoretical Modeling." *Journal of the American Planning Association* 83 (4), 418. doi:10.1080/01944363.2017.1362306

2017 Boeing, G. "Understanding Cities through Networks and Flows." *Berkeley Planning Journal* 28 (1), 118–123. doi:10.5070/BP328133862

2016 Boeing, G. "How Our Neighborhoods Lost Food, and How They Can Get It Back." *Progressive Planning* 206 (Winter), 35–37. doi:10.31235/osf.io/a5e2q

Reports and Working Papers

2018 Waddell, P., G. Boeing, M. Gardner, and E. Porter. "An Integrated Pipeline Architecture for Modeling Urban Land Use, Travel Demand, and Traffic Assignment." US Department of Energy SMART Mobility Urban Science Pillar: Coupling Land Use Models and Network Flow Models. Technical report. doi:10.31235/osf.io/74zaw

Patents

2014 Beck, A. E., G. Boeing, and D. Shannon. *Systems and Methods for Analyzing Requirements*. United States patent US8650186B2, European patent EP2413256, Australian patent AU2011204935, Canadian patent CA2747481, Chinese patent CN102346763.

Manuscripts in Preparation

2020 Boeing, G. and W. Riggs. "Converting One-Way Streets to Two-Way Streets to Improve Transportation Network Efficiency and Reduce Vehicle Distance Traveled." Target: *Journal of the American Planning Association*, Spring 2020.

2020 Kontokosta, C., L. Bettencourt, M. González, S. Williams, and G. Boeing. "Urban Science and Analytics." *Journal of Planning Education and Research*, Spring 2020.

2020 Boeing, G., M. Batty, S. Jiang, L. Schweitzer. "Urban Analytics: History, Trajectory, and Critique." Target: *Handbook of Spatial Analysis in the Social Sciences*, edited by S. Rey and R. Franklin. Cheltenham, UK: Edward Elgar. Summer 2020.

2020 Boeing, G. "The Legibility of Urban Form: Spatial Information, City Planning, and the Human Experience." Target: *Urban Experience and Design: Contemporary Perspectives on Improving the Public Realm*, edited by J. B. Hollander and A. Sussman. Abingdon, UK: Routledge. Summer 2020.

2020 Boeing, G. "GIS and Computational Notebooks." Target: *The Geographic Information Science & Technology Body of Knowledge*, edited by J. P. Wilson. Ithaca, NY: University Consortium for Geographic Information Science. Fall 2020.

INVITED TALKS

2020 "Street Networks and the Evolving Urban Structure." University of Chicago, Center for Spatial Data Science and Mansueto Institute for Urban Innovation Colloquium Series. Chicago, Illinois. Apr 26.

2019 "Urban Data Science: Street Networks and Travel Behavior." Evidation Health, Data Science Seminar Series. Santa Barbara, California. May 16.

2019 "Network Science for Urban Transportation Modeling and Long-Range Planning." MIT Megacity Logistics Lab at the Center for Transportation and Logistics. Cambridge, Massachusetts. May 9.

2019 "Computational Modeling and Analysis in Transportation System Design." Cornell University, Systems Engineering Seminar Series. Ithaca, New York. Apr 12.

2019 "Growth, Access, and Resilience as Urban Technology Paradigms Shift." The World Bank, Global Facility for Disaster Reduction and Recovery. Washington, DC. Apr 3.

2018 "Computational Urban Street Network Analysis." Virginia Tech, Urban Computing Seminar Series. Arlington, Virginia. Dec 4.

2018 "Urban Science and Street Networks." Massachusetts Institute of Technology, Department of Urban Studies and Planning. Cambridge, Massachusetts. Nov 27.

2018 "Introduction to Street Network Analysis with OSMnx." University of Helsinki, Digital Geography Lab (remote/recorded interview). Helsinki, Finland. Nov 16.

2018 "Urban Street Network Science with OSMnx." Tufts University, Department of Urban and Environmental Policy and Planning. Somerville, Massachusetts. Nov 15.

2018 "Free Data for Free Spaces: Democratizing and Disseminating Spatial Network Data and Models for Better Urban Planning." Venice Biennale of Architecture. Venice, Italy. Oct 24.

2018 "Online Rental Housing Market Representation and the Digital Reproduction of Urban Inequality." Harvard University, Joint Center for Housing Studies. Cambridge, Massachusetts. Sep 20.

2018 "Urban Street Network Science: Modeling, Simulating, and Visualizing Complex Transportation Systems." Uber Technologies. San Francisco, California. Aug 20.

2018 "The Study of Street Networks in Urban Data Science." NYU Center for Data Science. New York, New York. Apr 18.

2018 "Computational Street Network Analysis in Urban Form Studies." Columbia University Graduate School of Architecture, Planning, and Preservation. New York, New York. Apr 17.

2018 "Scalable Methods for Acquiring, Analyzing, and Visualizing Urban Street Networks." NYU Center for Urban Science and Progress, Applied Urban Science Group. Brooklyn, New York. Apr 16.

2018 "Studying Urban Form and Resilience through Large-Scale Street Network Analysis." University of California, Santa Barbara, Department of Geography. Santa Barbara, California. Jan 30.

2018 "Seeing Cities through New Technologies and Big Data." University of Oregon, School of Planning, Public Policy, and Management. Eugene, Oregon. Jan 25.

2018 "Understanding Urban Form and Circulation through Large-Scale Street Network Analysis." Dartmouth College, Department of Geography. Hanover, New Hampshire. Jan 15.

2017 "Street Network Analyses of Urban Form Resilience and Equity." University of Chicago, Mansueto Institute for Urban Innovation. Chicago, Illinois. Nov 2.

2017 "Measuring Urban Form Sustainability with Topological and Geometric Street Network Analysis." Stanford University, Sustainable Urban Systems Initiative. Palo Alto, California. Oct 26.

2017 "Graph-Theoretic Representation and Analysis of Urban Street Networks." Montana State University, Department of Computer Science. Bozeman, Montana. Oct 16.

2017 "OpenStreetMap Network Data for Transportation Planning." Remix Transit Planning. San Francisco, California. Aug 16.

2017 "Street Networks: Urban Form and Resilience." University of Florida, Department of Urban and Regional Planning. Gainesville, Florida. May 8.

2017 "Scalable Methods for Acquiring, Analyzing, and Visualizing Urban Street Networks." The Santa Fe Institute. Santa Fe, New Mexico. Feb 2.

2016 "Urban Data Science for Studying Housing Affordability and Urban Form." NYU Center for Urban Science and Progress. Brooklyn, New York. Dec 14.

2016 "New Insights into Rental Housing Markets: Web Scraping and Analyzing Craigslist Rental Listings." City of Oakland. Oakland, California. May 12.

2016 "New Insights into Rental Housing Markets: Web Scraping and Analyzing Craigslist Rental Listings." City of San Francisco, Citywide Planning Division. San Francisco, California. Apr 19.

2016 "Smart Cities, Technology, and Representation: Prospects and Challenges." Adobe Systems Sustainability Speaker Series. San Jose, California. Jan 28.

Campus Talks

2018 "Urban Street Network Science with OSMnx." Northeastern University Seattle Campus. Seattle, Washington. Nov 28.

2018 "The Legibility of Urban Spatial Order in Computational Street Network Analysis." NUVis: Northeastern University Visualization Consortium. Boston, Massachusetts. Oct 18.

2017 "Urban Street Network Analysis with OSMnx." Geospatial Innovation Facility, College of Natural Resources, University of California, Berkeley. Berkeley, California. Oct 5.

CONFERENCE ACTIVITY

Plenary/Keynote Addresses

2019 "Geographic Information, Spatial Networks, and the New Urban Science." American Association of Geographers Annual Meeting, 8th annual *Transactions in GIS* plenary address. Washington, DC. Apr 3–7.

2018 "The Legible and the Illegible: Urban Science, City Design, and Human Circulation." The Architect of the Future Conference. Moscow, Russia. Sep 10–11.

Session Organizer

2017 "Emerging Computational Methods in Urban Design." Association of Collegiate Schools of Planning Annual Conference. Denver, Colorado. Oct 12–15.

Session Chair/Discussant

2019 "Machine Learning Methods." Association of Collegiate Schools of Planning Annual Conference. Greenville, South Carolina. Oct 24–27.

2019 "Social Systems." International Conference on Network Science. Burlington, Vermont. May 27–31.

2018 "Smart Cities Technologies for Transportation Systems." Smart Cities: Critical Infrastructure Symposium. Seattle, Washington. Nov 29.

Invited Panelist

2019 "Urban Data Science: Methods and Models for Our Changing Cities." Panelist with Vanessa Frias-Martinez, Wenfei Xu, Song Gao, and Ate Poorthuis; chaired by Levi Wolf and Wei Kang. American Association of Geographers Annual Meeting. Washington, DC. Apr 3–7.

2018 "Big Ideas Session on Civic Analytics and Urban Science." Panelist with Luis Bettencourt, Marta González, and Sarah Williams; chaired by Constantine Kontokosta. Association of Collegiate Schools of Planning Annual Conference. Buffalo, New York. Oct 25–28.

2018 "Who Benefits from 'Smart City' Technologies? How Can They Be a Piece of the Puzzle Toward Social and Environmental Justice?" Panelist with Lisa Schweitzer, Clint Andrews, and Tom Sanchez; chaired by Mehdi Heris. Association of Collegiate Schools of Planning Annual Conference. Buffalo, New York. Oct 25–28.

2017 "Public Communication Strategies for Planning Academics." Panelist with Jennifer Dill, Yingling Fan, and Justin Hollander; chaired by Carissa Slotterback. Association of Collegiate Schools of Planning Annual Conference. Denver, Colorado. Oct 12–15.

Symposia

2019 Spatial Data Science Symposium: Setting the Spatial Data Science Agenda. Santa Barbara, California. Dec 9–11.

Conference Presentations

Presenting author *italicized* if other than first author.

2020 Higgs, C., S. Liu, G. Boeing, J. Arundel, M. Lowe, J. Sallis, E. Cerin, A. V. Moudon, E. Hinckson, D. Adlakha, and B. Giles-Corti. "Using Open Data to Measure Policy-Relevant Geospatial Indicators of Healthy, Active Urban Environments in 25 Global Cities." International Society of Behavioral Nutrition and Physical Activity Annual Meeting. Auckland, New Zealand. June 17–20.

2020 Giles-Corti, B., A. V. Moudon, M. Lowe, M. Stevenson, D. Adlakha, J. Arundel, E. Cerin, E. Hinckson, D. Salvo, C. Higgs, G. Boeing, S. Liu, and J. Sallis. "Creating Healthy Liveable Active Cities: What Gets Measured Gets Done." International Society of Behavioral Nutrition and Physical Activity Annual Meeting. Auckland, New Zealand. June 17–20.

2020 Cerin, E., M. Lowe, C. Higgs, A. V. Moudon, M. Stevenson, D. Adlakha, J. Arundel, E. Hinckson, D. Salvo, G. Boeing, S. Liu, J. Sallis, B. Giles-Corti. "Urban Design and Transport Policies to Create Healthy, Active Cities across the World: What Are They and How Can We Measure Them?" International Society of Behavioral Nutrition and Physical Activity Annual Meeting. Auckland, New Zealand. June 17–20.

2020 Boeing, G. "The Recent Evolution of American Street Network Planning and Design: A Big Data Approach." Western Regional Science Association Annual Meeting. Honolulu, Hawaii. Mar 18–21.

2020 Boeing, G. "The Street Grid and Car Ownership: Trends in US Transportation Network Design." Transportation Research Board Annual Meeting. Washington, DC. Jan 12–16.

2019 Boeing, G. "Off the Grid: The Evolution of American Street Network Planning and Design." Association of Collegiate Schools of Planning Annual Conference. Greenville, South Carolina. Oct 24–27.

2019 Boeing, G. and *W. Riggs* "Converting One-Way Streets to Two-Way Streets to Improve Transportation Network Efficiency and Reduce Emissions." Association of Collegiate Schools of Planning Annual Conference. Greenville, South Carolina. Oct 24–27.

2019 Boeing, G. "Urban Spatial Order: Street Network Orientation, Configuration, and Entropy." International Conference on Network Science. Burlington, Vermont. May 27–31.

2019 Boeing, G. "The Legibility of Urban Form: Spatial Information Platforms and Visualization." International Conference on Urban Experience and Design. Medford, Massachusetts. Apr 26.

2019 Boeing, G. "Online Rental Housing Market Representation and the Digital Reproduction of Urban Inequality." Boston Area Research Initiative Annual Conference. Boston, Massachusetts. Apr 26.

2019 Boeing, G. "The Evolution of American Street Network Design and Planning." Urban Affairs Association Annual Conference. Los Angeles, California. Apr 24–27.

2019 Abdelkader, A., G. Boeing, *B. T. Fasy*, and D. L. Millman. "Local Persistent Homology-Based Distances between Nonplanar Road Networks." Joint Mathematics Meetings. Baltimore, Maryland. Jan 16–19.

2018 Abdelkader, A., G. Boeing, B. T. Fasy, and D. L. Millman. "Topological Distance Between Nonplanar Transportation Networks." Fall Workshop on Computational Geometry. Queens, New York. Oct 26–27.

2018 Boeing, G. "Sociodemographic Representation of Online Rental Housing Listings: Information Surpluses and Deficits." Association of Collegiate Schools of Planning Annual Conference. Buffalo, New York. Oct 25–28.

2018 Waddell, P., I. Garcia-Dorado, S. Maurer, G. Boeing, M. Gardner, E. Porter, and D. Aliaga. "Urban Modeling Without Zones: A Metropolitan Graph-Based Microsimulation of Real Estate Markets and Transportation." Association of Collegiate Schools of Planning Annual Conference. Buffalo, New York. Oct 25–28.

2018 Boeing, G. "Transportation Network Modeling and Urban Equity." Dukakis Center for Urban and Regional Policy Transportation Equity Conference. Boston, Massachusetts. Oct 19.

2018 Waddell, P., I. Garcia-Dorado, S. Maurer, G. Boeing, M. Gardner, E. Porter, and D. Aliaga. "Architecture for Modular Microsimulation of Real Estate Markets and Transportation." Symposium on Applied Urban Modelling. Cambridge, England. Jun 27–29.

2017 Boeing, G. "New Methods for Acquiring and Analyzing Worldwide Street Network Data: A

Multiscale Analysis of 27,000 Urban Street Networks." Association of Collegiate Schools of Planning Annual Conference. Denver, Colorado. Oct 12–15.

2016 Boeing, G. "Craigslist and U.S. Rental Housing Markets." American Planning Association Annual Conference. Phoenix, Arizona. Apr 2–5.

2016 Boeing, G. "Understanding Informal Rental Housing Markets through Public Data." American Association of Geographers. San Francisco, California. Mar 29–Apr 2.

2016 Barajas, J. M., G. Boeing, and *J. Wartell*. "Neighborhood Change, One Pint at a Time: The Impact of Local Characteristics on Craft Breweries." Urban Affairs Association Annual Conference. San Diego, California. Mar 16–19.

2015 Boeing, G. "Methods for Measuring the Aggregate Complexity Outcomes of Urban Design." International Conference on Complex Systems. Tempe, Arizona. Sep 28–Oct 2.

2015 Boeing, G. "Pedagogy of Urban Informatics." Environmental Design Circus. Berkeley, California. Mar 6.

2014 Boeing, G. and P. Waddell. "Web Scraping Urban Data: Lessons from the Lab and the Classroom." Association of Collegiate Schools of Planning Annual Conference. Philadelphia, Pennsylvania. Oct 30–Nov 2.

2014 Boeing, G., D. Church, H. Hubbard, J. Mickens, and L. Rudis. "LEED-ND and Perceptions of Livability." Environmental Design Circus. Berkeley, California. Mar 13.

GRANTS AND AWARDS

Awards and Honors

2019 Network Science Society Visualization Prize finalist

2018 Information Is Beautiful Awards shortlist

2014 Kaye Bock Award, best journal article

2010 Accenture Inventor Innovation Award

Grants and Fellowships

2020 Connections Between Built Environments, Policy, and Public Health ($100,000 + second year option). The Public Good Projects research grant. PI.

2019 Urban Form Impact: Humans, Environment, Equity ($50,000). Northeastern University Tier 1 research grant. Co-PI with Sara Carr and Jana Cephas.

2019 NU CSSH summer research matching grant ($6,000). PI.

2019 NU Lab for Maps, Texts, and Networks research grant ($2,500). PI.

2018 ACSP FWIG Emerging Scholar travel grant ($500)

2018 NU Lab for Maps, Texts, and Networks travel grant ($1,000)

2018 Northeastern University research fund ($25,000)

2017 University of California Doctoral Completion Fellowship ($36,655)

2016 UC Berkeley DCRP travel grant ($500)

2016 University of California Graduate Division travel grant ($900)
2015 UC Berkeley DCRP travel grant ($500)
2012 University of California Regents' Fellowship ($158,025/4 years)

TEACHING EXPERIENCE

University of Southern California

Urban Informatics
Data, Evidence, and Communication for the Public Good

Northeastern University

Urban Theory and Science
Advanced Spatial Analysis of Urban Systems
Big Data for Cities

University of California, Berkeley

Urban Informatics and Visualization

Planetizen

Python for Planners
Data Analysis and Visualization for Planners
Geospatial Data Analysis
Street Network Analysis

SERVICE

Journal Peer Review

American Journal of Sociology
Case Studies on Transport Policy
Cities
Computers, Environment and Urban Systems
Environment and Planning B: Urban Analytics and City Science
European Physical Journal: Data Science
International Journal of Geographical Information Science
International Planning Studies
International Regional Science Review
ISPRS International Journal of Geo-Information
Journal of the American Planning Association

Journal of Open Source Education
Journal of Planning Education and Research
Journal of Planning Literature
Journal of Transport Geography
Journal of Transport and Land Use
Journal of Urban Technology
Landscape and Urban Planning
Mathematics
Nonlinear Dynamics
PLOS One
The Professional Geographer
Region
Scientific Reports
Social Forces
Social Indicators Research
Sustainability
Sustainable Cities and Society
Transactions in GIS
Transport Findings
Transport Reviews
Transportation Research Record
Urban Design International
Urban Science
Urban Studies

Academic Press Peer Review

Cambridge University Press

Funding Agency Peer Review

National Science Foundation
Social Sciences and Humanities Research Council of Canada

Service to Field

Task Force on Outreach and Engagement, Association of Collegiate Schools of Planning, 2019–
Program Committee, Future Cities Challenge, 2019–
Review and Appraisal Committee, Association of Collegiate Schools of Planning, 2018–
Scientific Committee, Symposium on Simulation for Architecture and Urban Design, 2018–
Book review editor, *Berkeley Planning Journal*, 2013–14

Service to Department

Hiring Search Committee (environmental planning position), USC DUPSA, 2019–20
Standing Committee on Digital Proficiencies and Quantitative Methods, NU CSSH, 2018–19
Ph.D. program faculty representative, UC Berkeley DCRP, 2015–16
Ph.D. program admissions committee, UC Berkeley DCRP, 2015–16

Doctoral Student Committees

Li Yi (outside member, USC Spatial Sciences Institute)
Xiaozhe Yin (outside member, USC Spatial Sciences Institute)

Studio Review Jury

MIT, Workshop on Geographic Information Systems (Prof. Sarah Williams), Fall 2018

PROFESSIONAL AFFILIATIONS

American Association of Geographers
American Planning Association
Association of Collegiate Schools of Planning
Association for Computing Machinery
Complex Systems Society
Network Science Society
New York Academy of Sciences
Project Management Institute
Python Software Foundation
Regional Studies Association
Urban Affairs Association

CREDENTIALS

U.S. Department of Defense secret clearance
U.S. Department of Homeland Security public trust
Project Management Professional (PMP)

CONSULTING ENGAGEMENTS

2017–19 The Public Good Projects
2017–18 Calthorpe Analytics
2016–18 UrbanSim Inc.

2013–18 Avalon Health Economics

2013 Raimi & Associates

2009–13 Accenture

PROFESSIONAL EXPERIENCE

2009–13 Accenture, Consultant and Project Manager
London, England; New York, New York; San Diego, California

2007–09 Permission Data, Front-End Systems Product Manager
New York, New York

2004–07 Acumen Inc., Web Systems Developer
Mesa, Arizona

SELECTED MEDIA COVERAGE

Complete listing and links available at https://geoffboeing.com/press/

2019 *Forbes*. "See Your City in a New Way." Dec 30.

2019 *MIT Technology Review*. "What Makes a City Great? A New Way to Look at Urban Data Will Give Us Clues." Oct 16.

2019 *PBS NOVA*. "With 'Problems Out There Waiting for Us,' Public Health Practitioners Turn to AI for Help." Apr 11.

2018 *CityLab*. "Visualizing the Hidden Logic of Cities." Jul 26.

2018 *99 Percent Invisible*. "On the Grid: Visualizing Street Network Orientations Across 50 Global Cities." Jul 20.

2018 *Slate*. "Elegant Graphs Reduce 25 American Cities to Their Design Essence." Jul 11.

2017 *The San Francisco Chronicle*. "Stunning, Simple Maps Show San Francisco versus Other Global Cities." Jun 19.

2017 *Forbes*. "Understanding Our Cities, Thanks to Beautiful Maps." Feb 7.

2017 *Fast Company*. "Turn Your Local Streets into a Map That Reveals the Character of Your Neighborhood." Feb 6.

2017 *CityLab*. "A Digital Window into Your City's Urban Form." Jan 17.

2016 *The Washington Post*. "What More Than 1 Million Craigslist Rental Listings Tell Us about the Housing Market." Sep 1.

2016 *Fast Company*. "11 Million Craigslist Ads Show Which Cities Have the Highest Rents." Sep 1.

2016 *NextCity*. "What 11 Million Craigslist Posts Show About Affordable Housing." Aug 26.

TECHNICAL SKILLS

Statistical and Computational Methods

Computational statistics and machine learning, systems analysis, data mining, data wrangling, Python (including numpy, scipy, pandas, matplotlib, statsmodels, networkx, and scikit-learn), JavaScript, HTML, web scraping, MySQL, Postgres, and various other databases.

Geospatial Methods

Spatial analysis, network analysis, PostGIS, QGIS, geopandas, PySAL, Leaflet, CARTO, agent-based spatial modeling and microsimulation. I developed and maintain the OSMnx street network modeling software.

Updated February 2020