

ANTHONY P. VANKY

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ACADEMIC APPOINTMENTS

- 2020.07 – current **University of Michigan — Ann Arbor, Michigan, USA**
Assistant Professor —
Taubman College of Architecture and Urban Planning
Full time appointment focused on teaching courses in urban data analysis, pervasive computing in the built environment, and mobility, and their applications to urban design and planning.
- 2018.07- 2020.06 **Columbia University — New York, New York, USA**
Assistant Professor (Visiting) —
Graduate School of Architecture, Planning and Preservation
Affiliate (Visiting) — Smart Cities Research Center, Data Science Institute
Full time appointment focused on teaching courses in urban data analysis, pervasive computing in the built environment, and mobility, and their applications to urban design and planning.
- 2017.08 - 2018.07 **Massachusetts Institute of Technology (MIT) — Cambridge, Massachusetts, USA**
Lecturer in Urban Design and Planning — Department of Urban Studies and Planning
Taught courses in the urban design sequence. Mentored PhD and Masters candidates in urban studies and planning and architecture. Advised graduate student theses and independent studies.
- Program Manager —*
MIT DesignX Entrepreneurship Center, School of Architecture and Planning
Coordinated and initiated academic offerings, workshops and programs for students and faculty on entrepreneurship and innovation in the human and built environment. Co-taught the affiliated entrepreneurship and venture studio course.

EDUCATION

- 2017.06 **Massachusetts Institute of Technology (MIT) — Cambridge, Massachusetts, USA**
Doctor of Philosophy (PhD) in Urban & Regional Planning
Dissertation Title: To and Fro: Digital Data-Driven Analyses of Pedestrian Mobility in Urban Spaces. *Advisors: Dennis Frenchman and Carlo Ratti*
- 2011.06 **Massachusetts Institute of Technology (MIT) — Cambridge, Massachusetts, USA**
Master of Science in Architecture Studies (SMArchS), with Urbanism emphasis
- 2007.05 **Tulane University — New Orleans, Louisiana, USA**
Master of Architecture and Bachelor of Architecture
Second Major: Political Science, Minor: Business

RESEARCH

- 2015-2016 **Economic Graph Challenge Winner - LinkedIn Corporation**
Collaborated with a multi-disciplinary team to analyze LinkedIn social network data to relate users' aggregated connectivity and urban economic performance to generate a so-called generate an "urban economic genome."

- 2011.10 - 2017.05 **Research Assistant - Senseable City Lab, Massachusetts Institute of Technology
Project Coordination + Researcher**
 Urban Form and Pedestrian Modeling (with the Liberty Mutual Institute for Safety)
 Perception-Based Human Mobility Modeling (with the Austrian Inst. of Technology)
 Wood Buffalo Population Analysis
 Urban Transport Systems and City Dynamics (as part of CCES, Saudi Arabia)
 Dynamic Spaces Berlin (co-coordinated, as part of the BMW Guggenheim Lab Berlin)
- Conducted applied research with, and coordinated multi-disciplinary teams. Lead projects that generated and analyzed large data sets—such as mobile phone and social media information—to identify population dynamics (at scale) to ultimately address urban infrastructure problems such as traffic, disaster response, and demographic change and its relation to urban form. Liaised with collaborating governments and research partners, which included the City of Boston, the Regional Municipality of Wood Buffalo (Canada), the King Abdul-Aziz City for Science and Technology, the Austrian Institute of Technology, and others.
- Researcher**
 Live Singapore! Initiative (City-Level Urban Data Fusion)
 Flyfire (3D Image Mapping)
- 2013 Conference Co-organizer: Big Data or Bad Data?
 2014 Conference Co-organizer, Forum on the Future City: The Road Ahead
 2015 Conference Program Lead, Bits & Bricks (with World Economic Forum)
- 2010.05 - 2010.08 **Low Energy Cities, MISTI-China (MIT)**
 Conducted design research to analyze the relationship energy usage and urban form. Awarded research and travel funding, under Dennis Frenchman.
- 2009.10 - 2010.08 **Research Assistant - Department of Architecture,
Massachusetts Institute of Technology**
 Performed a preliminary policy analysis of regional urban development policy and initiatives, under Andrew Scott.

TEACHING

Columbia University

- 2020.spring PLA6201: Urban Informatics II: Urban Sensing, the Environment and Play!
 2020.spring PLA6232-1: Advanced Spatial Analysis
 2019.fall PLA6619-1: Introduction to Urban Data and Informatics
 2019.fall PLA6850: Thesis/Capstone Workshop (Co-Taught)
 2019.spring PLA6201: Urban Informatics II: Sensing and Measuring Public Life
 2019.spring PLA6103: Data and Urban Mobility Workshop
 2018.fall PLA6619-1 and 2: Introduction to Urban Data and Informatics

Massachusetts Institute of Technology

- 2018.spring Lecturer — 4.245/11.245: DesignX Entrepreneurship Accelerator.
 2018.spring Lecturer — 4.244/11.333: Urban Design Seminar: Challenges at Urbanism’s Edge.
 2017.fall Lecturer — 4.252/11.301: Introduction to City Design and Development.
 2017.spring PhD Instructor — 4.245/11.245 DesignX Entrepreneurship Accelerator.

2015.spring, 2014.spring PhD Instructor — 11.320 Digital City Workshop, Dept. of Urban Studies and Planning.
2013.spring, 2012.spring Teaching Assistant — 11.320: Digital City Workshop.
2010.fall Teaching Assistant — 4.252/11.301: Introduction to City Design and Development.
2010.spring Teaching Assistant — 4.332/4.333: Adv. Seminar in Networked Cultures & Participatory Media.
MIT Graduate Teaching Certificate, 2012.

International Workshops

2012.03 Co-coordinator — Smart City Lab Workshop at IDAS, Hongik University, Seoul.
2012.spring Program Tutor — Strelka Institute, Moscow.
2011.06 Studio Tutor — Archiprix 2011 Biennial Workshop, Cambridge/New York, USA.

Graduate Thesis Advising

Columbia University: Mariya Chekmarova, Rebecca Cook, Yuan Kari Gao, Kate Galbo, Christine Ghossoub, Joy Huang, Kevin Kim, Lorraine Liao, Ri Le, Simon Li, Tola Oniyangi, Jade Watkins

PROFESSIONAL POSITIONS

- 2012.01 - 2015.01 **Partner & Outreach Strategist, MIT Senseable City Lab**
Oversaw, coordinated and implemented the outreach, business development and sponsor relations initiatives of the research group. Conceptualized and drafted proposals, negotiated and secured multi-year research sponsorships with industry and governments including Volkswagen ERL, Uber, Dallas Area Rapid Transit, the World Bank, among others. Managed partner relation efforts. Spearheaded and realized outside corporate workshops focused on future cities and urban technologies, including with Allianz, Volkswagen AG, Retail Net Group, among others. Co-organized several high-level conferences attended by business, research and policy leaders.
- 2009.04 - 2009.09 **Policy Researcher & Program Staff, Ann Arbor SPARK**
Initiated research and advocacy efforts toward the creation of a regional creative economy plan. Developed and implemented programs, workshops and community outreach efforts for business support and incubation services for the regional economic development agency. Organized skills retraining workshops for automotive industry workers pivoting toward high-growth industry opportunities.
- 2007.08 - 2008.08 **National Vice President, American Institute of Architecture Students, inc.**
Organized advocacy and outreach efforts representing 20,000 emerging professionals and 7,000 members in 140 universities chapters in North America and across four continents. Directed national professional and education policy initiatives. Served as the fiduciary officer, with oversight of an operating budget exceeding \$1.2M. Orchestrated various membership development and media outreach programs, and co-directed the organization's capital campaign.
- 2006.06 - 2006.09 **Architectural Designer, HKS, inc.**
Designed large commercial and mixed-use developments, including the Las Vegas CityCenter and AT&T Stadium in Arlington, Texas.

PUBLICATIONS

** denotes first authorship, or equal contribution as primary authors*

Peer Reviewed Papers

- journal article (in submission) Vanky, Anthony*, Fabio Duarte, Jesus Ricardo Alvarez Felix. "Sensing Spaces: A Taxonomy of Situated Technologies and the Sensing of People in Place."
- journal article (in review) Vanky, Anthony*, Theodore Courtney, Santosh Verma, Paolo Santi and Carlo Ratti. "Urban Design and the Built Environmental Impacts on Pedestrians and Walking Activity."
- journal article (in review) Vanky, Anthony*, Theodore Courtney, Santosh Verma, Paolo Santi and Carlo Ratti. "Walk this Way: Built Environment Characteristics of Aggregated Revealed Choices in Urban Walking Activities."
- journal article (in review) Vanky, Anthony*, Theodore Courtney, Santosh Verma, Paolo Santi and Carlo Ratti. "Examining Weather Influences on Physical Activity and Active Travel Using Mobile Phone GPS Datasets."
- journal article Malleson, N.*, Vanky, A.*, Hashemian, B., Santi, P., Verma, S. K., Courtney, T. K., & Ratti, C. (2018). The characteristics of asymmetric pedestrian behavior: A preliminary study using passive smartphone location data. *Transactions in GIS*, 22(2), 616-634.
- journal article Vanky, Anthony*, Theodore Courtney, Santosh Verma, Paolo Santi and Carlo Ratti. "Effect of Weather on Pedestrian Trip Count and Duration: City-Scale Evaluations Using Mobile Phone Application Data." In *Preventive Medicine Reports* 8 (2017) 30-37.
- journal article Nabian, Nashid*, Dietmar Offenhuber*, Anthony Vanky*, and Carlo Ratti. "Data dimension: accessing urban data and making it accessible." *Institution of Civil Engineers-Urban Design and Planning* 166, no. 1 (2013): 60-75.

Book Chapters

- book chapter Vanky, Anthony. 2019. The Most Magical City on Earth. In Graham, M., Kitchin, R., Mattern, S. and Shaw, J. (eds) *Cities Should Be Run Like Companies and Other Fables*. Meatspace Press, Oxford.
- book chapter Vanky, Anthony. 2013. "Data Availability/Data Relevance." In *Decoding the City: Urbanism in the Age of Big Data*, ed. Dietmar Offenhuber. New York: Birkhauser.
- book chapter Vanky, Anthony. 2012. Verfügbarkeit und Relevanz von Daten. In *Die Stadt Entschlüsseln. Wie Echtzeitdaten den Urbanismus verndern*, ed. Dietmar Offenhuber. Basel: Bauwelt Fundamente.
- book chapter Cho, Ryan*, Curtis Laub* and Anthony Vanky*. 2005. Parallel Growth. In *New Orleans: Strategies for a City in a Soft Land*, ed. Busquets, J. and F. Correa. Cambridge: Harvard University Press.

Conference Proceedings

- paper proceedings Vanky, Anthony*, Matthew Claudel and Gilad Rosenzweig. Entrepreneurship and Venture-Focused Pedagogies: The Case-Study of MIT designX for Urban Technologies Development. Association of Collegiate Schools of Planning, Buffalo, NY, October, 2019.
- paper proceedings Vanky, Anthony, Theodore Courtney, Santosh Verma, and Carlo Ratti. 2016. One to Many: Opportunities to Understanding Collective Behaviors in Urban Environments Through Individual's Passively-Collected Locative Data. In International Conference on Distributed, Ambient, and Pervasive Interactions. Springer.
- paper proceedings Vanky, Anthony. 2015. The Elusiveness of Data Driven Urbanism. In 103rd ACSA (Association of Collegiate Schools of Architecture) Annual Meeting Proceedings. ISBN 978-0-935502-95-4.
- paper proceedings Vanky, Anthony. 2010. Designing the Future: The MIT Media Lab as a Pedagogical Case. In Proceedings of the Creating-Making Forum. University of Oklahoma Press.
- paper proceedings Caruso, Andrew, and Anthony Vanky. 2010. Designing the Future Professional: Expectations of the Next Generation. In *the Second Oxford Conference on Architectural Education*. WIT Press.

Other publications in popular and industry media including for Metropolis Magazine, IQT/US Intelligence Community, American Association of Geographers, Crit Magazine, the American Institute of Architects, among others.

CONFERENCE PAPERS & PRESENTATIONS

- organized workshop Burgy, David, Olivia Jovine, Aldo Treville, and Anthony Vanky. Digital x Physical Queer Spaces. American Planning Association NYC Hindsight Conference, New York, NY, December 2019.
- organized workshop Goodspeed, Robert, Shan Jiang, Nikhil Kaza, Anthony Vanky and Wenwen Zhang. Planning Pedagogy and the Computational Imperative. Association of Collegiate Schools of Planning Annual Meeting, Greenville, SC, October 2019.
- organized workshop Childs, Mark, Kian Goh, Annie Koh, Lily Pollans, and Anthony Vanky. Elysium Dreams: Speculative Fiction, Planning and the Art of Imagining the Future. Association of Collegiate Schools of Planning Annual Meeting, Greenville, SC, October 2019.
- paper presentation Vanky, Anthony, Theodore Courtney, Santosh Verma, Paolo Santi and Carlo Ratti. Enumerating Human Activity in the Built Environment using Mobile Application Data. Association of American Geographers Annual Meeting, Boston, MA, April 2017.
- paper presentation Vanky, Anthony, Theodore Courtney, Santosh Verma, Paolo Santi and Carlo Ratti. Walk this Way: A Data-Driven Analysis of Walking Activity and the Built Environment in Boston and Cambridge. Boston Area Research Initiative Conference, Boston, MA, March 2017.

- poster presentation Vanky, Anthony. Walking Behavior vs Walkability: Testing WalkScore and Walkability Measures Against Human Activities Recorded from Mobile Applications. Poster Presentation, AREUEA Doctoral Session, Chicago, IL, January 2017.
- poster presentation Vanky, Anthony, Theodore Courtney, Santosh Verma, and Carlo Ratti. Leveraging Individual, Locative Mobile Data to Investigate Urban-Scale Patterns of Walking Activity and Better Contextualize Injury Risk. Presentation, American Public Health Association, Denver, CO, October 2016.
- professional presentation Bui, Lily, Christopher Green, Miriam Roue and Anthony Vanky. Designing Urban Technologies. Presentation, ArchitectureBoston Expo, Boston, MA, April 2014.
- paper presentation Vanky, Anthony. 2010. At Home/In Transit: The Aerotropolis as City Form. In Proceedings of the Association of Collegiate Schools of Architecture.

PATENTS

- pending/application Aruswamy, V., Zhang, H., Bojic, I., Rolheiser, L., Sobolevsky, S., Vanky, A.P. (2016). Urban Professional Genome, U.S. Patent No. US20170287080A1.

INVITED PRESENTATIONS (SELECTED)

- 2018.07.20 TechStars Global Innovators Conference, Bangkok, Thailand
- 2018.11.09 AIA Oklahoma Conference Keynote, Oklahoma City, OK.
- 2018.03.19 MIT Global Startup Workshop – Urban Technologies Forum, Singapore.
- 2017.06.16 Ananda / TechStars Urban Tech Conference, Bangkok, Thailand.
- 2017.01.13 Nord Anglia STEAM Education Conference, Houston, TX
- 2016.06.01 Center for Strategic International Studies, Washington, DC.
- 2015.11.12 AIA Minnesota Conference, Minneapolis, MN.
- 2015.10.20 World Statistics Day, Inter-American Development Bank, Washington, DC.
- 2015.10.19 In-Q-Tel Data Visualization Technology Conference, Arlington, VA.
- 2015.09.05 EmTech en Espanol, Quito, Ecuador.
- 2015.06.09 Digidol 2015 National Innovation Conference, Cardiff, Wales, UK.
- 2015.06.11 Innovation Lecture Series (as part of MIT Industry Liaison Program). Bailey Gifford, Edinburgh, UK.
- 2015.02.26 Method Inc. Lecture Series, New York City, NY.
- 2015.02.20 Cities as Organisms Conference, University of Maribor, Maribor, Slovenia.
- 2014.12.12 Fraunhofer Institute Workshop on Design and Science, Berlin, Germany.
- 2014.10.16 Method Inc. Lecture Series, San Francisco, CA.
- 2014.09.16 GeoConference 2014, Quebec City, Quebec, Canada.
- 2014.09.11 MKThink Lecture Series, San Francisco, CA.
- 2014.06.06 University of Stuttgart Urban Design Institute. Stuttgart, Germany.
- 2013.12.04 OECD Seminar on Innovative Approaches, Aguascalientes, Mexico.
- 2013.11.08 AT Kearney Digital Business Forum, New York, NY.
- 2013.09.13 University of Kansas Architecture Lecture Series, Lawrence, KS.
- 2013.04.18 Catholic University of America Urban Planning Lecture Series, Washington, DC.
- 2013.04.17 University of Maryland Architecture Lecture Series. College Park, MD.
- 2013.03.28 Architecture Research Centers Consortium Annual Meeting. Charlotte, NC.
- 2013.03.27 Design and Computation Inauguration. University of North Carolina - Charlotte.
- 2013.03.01 Mobile Phone and Technology Workshop. Smithsonian Institution, Washington, DC.

2012.12.13	Volkswagen AG Global Marketing Innovation Meeting. Berlin, Germany.
2012.11.19	Skanska Worldwide R&D Conference. Boston, MA.
2012.06.26	BMW Guggenheim Lab. Berlin, Germany.
2012.06.10	University Lecture Series, Savannah College of Art and Design, Savannah, GA.
2012.10.06	Harvard University Innovation Conference, Cambridge, MA.
2010.10.06	World Summit on Innovation and Entrepreneurship. Boston, MA
2008.06	Emerging Voices in Architecture. International Congress of Architects (UIA), Torino, Italy.
2008.05	General Assembly Presenter, Convention of the American Institute of Architects. Boston, MA.

EXHIBITIONS + CREATIVE WORK

2012.summer	BMW Guggenheim Lab - Berlin (with Senseable City Lab)
2011.12	Flight Attentive. Descours Festival, New Orleans, LA.
2011.fall	Dutch Design Week. Eindhoven, Netherlands. (with Senseable City Lab)
2011.summer	Gwangju Design Biennial. Gwangju, South Korea. (with Senseable City Lab)
Permanent	Untitled Installation. Parsons Center for the Study of Art and Science. Lake Ann, MI.

HONORS

2017.winter	MIT Emerson Research Grant
2015.summer	LinkedIn Economic Graph Research Challenge Winner (team)
2011.may	MIT John S. W. Kellett '47 Award (jointly)
2006.may	Kappa Delta Phi (Tulane University's Honor Society for Service), Class of 2006
2006.summer	Lawrence Research Fellowship (Tulane University)
2005.spring	Tulane University Crest Award
2003 - 2007	Tulane University Blumenthal Fellow
2002.spring	Rosa Parks Foundation Fellow
2002.winter	Olympic Torchbearer, Salt Lake Winter Olympic Games

PROFESSIONAL LEADERSHIP ACTIVITIES

2016.spring - current	DesignX, MIT School of Architecture + Planning - Office of the Dean A member of the task force creating the School's entrepreneurship accelerator program for design and the human environment. Drafted and implemented the curriculum of the program.
2016.spring - 2018.summer	City of Cambridge, Massachusetts City-Appointed Task Force Member, Open Data Advisory Committee.
2010 - 2012	National Architectural Accrediting Board Director of the Board Executive Committee Observer, and Assessment and Evaluations Committee
2006 - current	Accreditation Team Member.
2008	Global/International Issues Working Group.

- American Institute of Architects**
2017 - current Practice Innovation Lab Working Group
2014.winter Large Firm Round Table Future Leaders Task Force.
2013.spring President's Strategic Directions Committee.
2009 Small Firm Round Table Project Team.
2008-2009 National Associates Committee, Executive Committee Member.
2008 Walter Wagner Forum, Co-organizer. American Institute of Architects.
- Association of Collegiate School of Architecture**
2007-2008 Director of the Board.
2008 Social Responsibility and Architectural Education Working Group.
- American Institute of Architecture Students**
2007-2008 Accreditation Review Conference Task Force, Co-chair.
2003-2005 AIAS FORUM Conference New Orleans, Vice Chair.
- 2010 **National Academy of Environmental Design.**
Steering Committee Grant/Development Researcher.
- 2007 - 2009 **AIA/NCARB Intern Development Program Advisory Committee.**
- 2007 - 2008 **National Council of Architectural Registration Boards,** Committee on Education.