KIJIN SEONG

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The University of Texas at Austin, Austin, TX 78712
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EDUCATION

2015 - 2021 **Ph.D. in Urban and Regional Sciences**
Texas A&M University, College Station, TX
Dissertation Title: "Living with Floods: Longitudinal impact of floodplain buyouts on neighborhood change"
Committee: Drs. Shannon Van Zandt (Chair), Walter G. Peacock, Galen Newman, David Cascante

2013 - 2015 **M.S. in Community and Regional Planning**
The University of Texas at Austin, Austin, TX

2010 - 2012 **M.S. in Architecture** (Specialization: Historic Preservation)
Seoul National University, Seoul, South Korea

2004 - 2010 **Bachelor of Architecture**
Yonsei University, Seoul, South Korea

RESEARCH AND TEACHING INTERESTS

Environmental Planning | Climate resilience, Emergency and disaster planning, change change adaptation, Environmental justice
Urban Informatics | Smart city resilience, Ethical AI, Urban digital twin
Methodology | Quantitative methods, Spatial analysis, Urban informatics, Mixed methods, Qualitative methods

ACADEMIC APPOINTMENTS

2022 -	**Postdoctoral Researcher**	Urban Information Lab, The University of Texas at Austin
2021	**Lecturer**	Dept. of Landscape Architecture and Urban Planning, TAMU
2021	**Researcher Fellow**	Hazard Reduction & Recovery Center, TAMU
2018	**Instructor of Record**	Dept. of Landscape Architecture and Urban Planning, TAMU
2017 - 2021	**Graduate Research Assistant**	Dept. of Landscape Architecture and Urban Planning, TAMU
2015 - 2016	**Graduate Teaching Assistant**	Dept. of Landscape Architecture and Urban Planning, TAMU

PUBLICATIONS

Peer-reviewed Journal Articles

2024 [1] **Seong, K.**, Jiao, J., Mandalapu, A., and Niyogi, D. (2024). Spatio-Temporal Patterns of Heat Index and Heat-Related Emergency Medical Services (EMS). *Sustainable Cities and Society*, 111, 105562. DOI: 10.1016/j.scs.2024.105562

[2] Lewis, R. H., Jiao, J., **Seong, K.**, Farahi, A., Navrátil, P., Casebeer, N., & Niyogi, D. (2024). Fire and smoke digital twin – A computational framework for modeling fire incident outcomes. *Computers, Environment and Urban Systems*, 110, 102093. DOI: 10.1016/j.compenvurbsys.2024.102093

[3] **Seong, K.,** Choi, S., Jiao, J. (2024). IoT sensors as a tool for assessing spatiotemporal risk to extreme heat. *Journal of Environmental Planning and Management.* 1-23. DOI: 10.1080/09640568.2024.2320257

[4] **Seong, K.** and Jiao, J. (2024). Is a Smart City Framework the Key to Disaster Resilience? A Systematic Review. *Journal of Planning Literature*. DOI: 10.1177/08854122231199462

2023 [5] **Seong, K.**, Jiao, J., and Mandalapu, A. (2023). Hourly Associations between Heat Index and Heat-Related Emergency Medical Service (EMS) Calls in Austin-Travis County, Texas. *International Journal of Environmental Research and Public Health*. 20(19), 6853. DOI: 10.3390/ijerph20196853

[6] Jiao, J., Lewis, R. H., **Seong, K.,** Farahi, A., Navratil, P., Casebeer, N., & Niyogi, D. (2023). Fire and Smoke Digital Twin--A computational framework for modeling fire incident outcomes. arXiv preprint DOI: 10.48550/arXiv.2305.18313

[7] **Seong, K.**, Jiao, J., and Mandalapu, A. (2023). Effects of Urban Environmental Factors on Heat-related Emergency Medical Services (EMS) Response Time. *Applied Geography*. 155, 102956. DOI: 10.1016/j.apgeog.2023.102956

2022 [8] **Seong, K.**, Jiao, J., and Mandalapu, A. (2022). Evaluating the effects of heat vulnerability on heat-related emergency medical service incidents: Lessons from Austin, Texas. *Environment and Planning B: Urban Analytics and City Science.* 50(3), 776–795. DOI: 10.1177/23998083221129618

[9] **Seong, K.**, Losey, C., and Gu, D. (2022). Naturally Resilient to Natural Hazards? Urban-Rural Disparities in Hazard Mitigation Grant Program Assistance. *Housing Policy Debate.* 32(1), 190-210. DOI: 10.1080/10511482.2021.1938172

2021 [10] **Seong, K.**, Losey, C., and Van Zandt, S. (2021). To Rebuild or Relocate? Long-term Mobility Decisions of the Hazard Mitigation Grant Program (HMGP) Recipients. *Sustainability.* 2021; 13(16), 8754. DOI: 10.3390/su13168754

[11] Park, Y., Kim, M., and **Seong, K.** (2021). Happy neighborhoods: Investigating neighborhood conditions and sentiments of a shrinking city with Twitter data. *Growth and Change*, 52(1), 539-566. DOI: 10.1111/grow.12451

2020 [12] Losey, C., **Seong, K.**, and Van Zandt, S. (2020). Redressing Racial and Environmental Injustice Through a Voluntary Acquisition and Relocation Program. *Environmental Justice*, 13(4), 120-126. DOI: 10.1089/env.2019.0041

2019 [13] Sutley, E. J., Hamideh, S., Dillard, M. K., Gu, D., **Seong, K.**, and van de Lindt, J. W. (2019). Integrative Modeling of Housing Recovery as a Physical, Economic, and Social Process. *Proceedings of the 13th International Conference on Applications of Statistics and Probability in Civil Engineering (ICASP13)*. DOI: 10.22725/ICASP13.049

Manuscripts in Preparation

[1] **Seong, K.,** Jiao, J., Lewis, R. H., Farahi, A., Navratil, P., Casebeer, N., Jones, J., and Niyogi, D. Towards a Digital Twin for Smart Resilient Cities: Real-time fire and smoke tracking and prediction platform for community awareness (FireCom). (Under Review: Journal of Urban Technology)

[2] Mandalapu, A., **Seong, K.**, Jiao, J. Evaluating Urban Fire Vulnerability and Accessibility to Fire Stations and Hospitals in Austin, Texas. (Under Review: PLOS Climate)

[3] **Seong, K.**, Van Zandt, S., Peacock, W. G., Newman, G. Racial and Ethnic Change in Floodplain Buyout Neighborhoods: Twenty-five Years of Evidence from Houston. (Under Review: Journal of Planning Education and Research)

[4] Sammer, M., **Seong, K.**, Olvera N., Gronseth S. L., Anderson-Fletcher, E., Jiao, J., Reese, A., Kakadiaris, I. A. AI-FEED: Prototyping an AI-Powered Platform for the Food Charity

Ecosystem. (Under Review: International Journal of Computational Intelligence Systems)

[5] Jiao, J., **Seong, K.**, Davis, B., Niyogi, D., Farahi, A., and Navratil, P. Fire and Smoke Management in the Urban Digital Twin Era: Unearthing Challenges and Harnessing Opportunities for Equitable Urban Resilience (Plan to submit it in December 2023: Environmental Justice)

Peer-reviewed Professional Reports

2022 [1] **Seong, K.** and Choi, S. (2022). Spatiotemporal Climate Risk Vulnerability Assessment to Extreme Heat and Particulate Matter: Combining Realtime Concentration of De Facto Population. *Small Research Project Competition Final Report.* Seoul, South Korea: Seoul Institute. (Available at: https://www.si.re.kr/sites/default/files/small%2022

[2] **Seong, K.** and Losey, C. (2020). To Remain or Relocate? Mobility Decisions of Homeowners Exposed to Recurrent Hurricanes. *Natural Hazards Center Quick Response Grant Report Series, 303.* Boulder, CO: Natural Hazards Center, University of Colorado Boulder. (Available at: https://hazards.colorado.edu/quick-response-report/to-remain-or-relocate-mobility-decisions-of-homeowners-exposed-to-recurrent-hurricanes)

2010 [3] **Seong, K.**, Myung, J., and Jang, E. (2010). Collaborative Governance Model for Solving the Conflicts among Stakeholders: A Study of Historic City Gyeongju. *Graduate Thesis Competition Reports of Historic City Policy, Korean Cultural Heritage Administration.*

Published Data

2021 [1] **Seong, K.** and Van Zandt, S. (2021) "Interview Instruments for Buyout Participants, Remaining Residents, and Project Managers in Harris County, Texas", in *Longitudinal Impact of Floodplain Buyouts on Neighborhood Change in Harris County, Texas*. DesignSafe-CI. https://doi.org/10.17603/ds2-sb6m-n647.

[2] Rosenheim, N., Day, W., and **Seong, K.** (2021). "Automated Neighborhood Characteristics for Community Resilience Planning." DesignSafe-CI. https://doi.org/10.17603/ds2-hj0p-bp40.

2020 [3] Sutley, E., Dillard, M., Hamideh, S., Peacock, W., Tobin, J., Peek, L., **Seong, K.**, Barbosa, A., Tomiczek, T., van de Lindt, J., and Gu, D. (2020)."Household Survey Instrument, January 19, 2018: Wave 2", in *A Longitudinal Community Resilience Focused Technical Investigation of the Lumberton, North Carolina Flood of 2016*. DesignSafe-CI. https://doi.org/10.17603/ds2-db3h-gy28.

INTERNAL/EXTERNAL GRANT FUNDING

Funded

2023 **COA-UT Austin Research Collaborations: Multilingual AI-Assisted Emergency Preparedness: Enhancing Resilience and Equity in Underserved Communities during Climate Change-Induced Weather Events (UTA19-000382). Funded by the City of Austin.**
Co-PI, COA-UT Austin. $99,812. Austin, TX.

2022 **NSF Convergence Accelerator Track J: Artificial-Intelligence-Based Decision Support for Equitable Food and Nutrition Security in the Houston Area 2022-2023 (# 2236305). Funded by National Science Foundation.**
Participated Proposal Writing, The University of Texas at Austin. FY 2023 $749,995. Austin, TX.

2022 **Energy Seed Grant Program 2022-2023. Funded by The University of Texas at Austin.**

Energy Institute, The University of Texas at Austin. $60,000. Austin, TX.

2022 **Small Research Project Competition 2022. Funded by Seoul Institute.**
Seoul Institute. $4,900. Seoul, South Korea.

2010 - 2021 **Texas Sea Grant Grants-in-Aid of Graduate Research Program 2020-2021. Funded by National Oceanic and Atmospheric Administration (NOAA).**
Texas Sea Grant. $2,400. College Station, TX.

2018 **Quick Response Grant Program (Hurricane Florence). Funded by National Science Foundation.**
Natural Hazards Center. $2,700. University of Colorado Boulder, CO.

Not Awarded

2022 **Developing Solar Energy and Energy Storage Sharing System for Community Energy Resilience in the Greater Houston Area.**
Participated Proposal Writing, Sponsored by U.S. Department of Energy. $500,000. Austin, TX.

CONFERENCE PRESENTATION AND POSTERS

2023 [1] Jiao, J., Lewis, R. H., **Seong, K.**, Farahi, A., Navratil, P., Casebeer, N., and Niyogi, D. (Apr. 2023). Fire and Smoke Digital Twin – A computational framework for modeling fire incident outcomes. Poster presented at *the 2023 Good Systems Symposium*, Austin, TX. USA.

[2] **Seong, K.,** Jiao, J., Mandalapu, A. (Mar. 2023). Associations between Spatio-temporal Patterns of Extreme Heat Events and Heat-related Emergency Medical Services (EMS) in Austin, Texas. *The 2023 American Association of Geographers (AAG) Annual Meeting,* Denver, CO. USA.

[3] **Seong, K.,** Jiao, J., & Mandalapu, A. (Jan. 2023). Effects of Urban Environmental Factors on Heat-related Emergency Medical Services (EMS) Response Time. Poster presented at *Transportation Research Board 2023 Annual Conference,* Washington D.C., USA.

2022 [4] **Seong, K.,** Mandalapu, A., Jiao, J. (Nov. 2022). Evaluating the Effect of Heat Vulnerability on Emergency Medical Service (EMS) Incidents in Austin, Texas. *The 2022 Association of Collegiate Schools of Planning Annual Conference,* Toronto, Canada.

[5] Choi, S., **Seong, K.**, and Jiao, J. (Jul. 2022). Spatiaotemporal Climate Risk Vulnerability Assessment to Extreme Heat and Particulate Matter: Combining Realtime Concentration of De Facto Population. *Sustainable Built Environment 2022 Seoul Conference.* Seoul, South Korea.

2021 [6] **Seong, K.**, and Van Zandt, S. (Oct. 2021). Neighborhood Change After Floodplain Buyouts: Findings from Harris County, Texas. *The 2021 Association of Collegiate Schools of Planning Annual Conference,* Virtual.

[7] **Seong, K.**, and Van Zandt, S. (Jul. 2021). Longitudinal Impact of Floodplain Buyouts on Neighborhood Change in Harris County, Texas. *The 46th Annual Natural Hazards Research and Application Workshop: Researchers Meeting*, Virtual.

2020 [8] Losey, C., **Seong, K.**, and Van Zandt, S. (Jul. 2020). "The Waters Will Rise Again": Recounting Resilience and Recovery Among HMGP Recipients. *The 45th Annual Natural Hazards Research and Application Workshop: Researchers Meeting*, Virtual.

2019 [9] Losey, C., **Seong, K.**, and Van Zandt, S. (Oct. 2019). To Remain or Relocate? Long-term Mobility Decisions of Homeowners Exposed to Recurrent Hurricanes. *The 59th Association of Collegiate Schools of Planning (ACSP) Conference*, Greenville, SC. *** 2019 ACSP The Best Poster Award**

[10] **Seong, K.**, Losey, C., and Van Zandt, S. (Sep. 2019). Post-disaster Mobility Decisions of

Homeowners in Lumberton, NC. *The HRRC Symposium "Resilience Rising: Research and Practice on Hurricane Harvey and Hazards of the Future"*, Texas A&M University, College Station, TX.

[11] Losey, C., **Seong, K.**, and Van Zandt, S. (Jul. 2019). Long-term Mobility Decisions of Homeowners Exposed to Hurricane Matthew and Florence. *The 44th Annual Natural Hazards Research and Application Workshop*, Broomfield, CO.

[12] **Seong, K.**, Losey, C., and Van Zandt, S. (Sep. 2019). The Paradoxes of Government Disaster Policy: Residential Mobility Decisions of Hazard Mitigation Grant Program (HMGP) Recipients. *The 44th Annual Natural Hazards Research and Application Workshop: Researchers Meeting*, Broomfield, CO.

[13] Sutley, E. J., Hamideh, S., Dillard, M., Gu, D., **Seong, K.**, and Van de Lindt, J., (May. 2019). Interactive Modeling of Housing Recovery as a Physical, Economic, and Social Process. *The 13th International Conference on Applications of Statistics and Probability in Civil Engineering (ICASP13)*, Seoul, South Korea.

2018 [14] **Seong, K.**, and Van Zandt, S. (Jul. 2018). Residential Mobility after Disasters: A Systematic Approach. *The 43rd Annual Natural Hazards Research and Applications Workshop*, Broomfield, CO.

[15] **Seong, K.**, and Van Zandt, S. (Apr. 2018). A Systemic Literature Review: Permanent Residential Relocation after Disasters. *The NIST-COE Semi-Annual Meeting Graduate and Post-Doctoral Poster Presentation Competition 2018*, Fort Collins, CO.

[16] **Seong, K.**, and Van Zandt, S. (Apr. 2018). A Systematic Literature Review of Post-Disaster Relocation: Driving Factors, Process, and Impacts of Residential Relocation. *The 48th Annual Conference of the Urban Affairs Association*, Toronto, Ontario, Canada.

2017 [17] **Seong, K.** (Oct. 2017). Physical and Social Vulnerability of Social Housing and Periodic Maintenance of Housing Association in Almere, the Netherlands. *The 19th Annual College of Architecture Research Symposium*, Texas A&M University, College Station, TX.

[18] **Seong, K.**, and Van Zandt, S. (Oct. 2017). Driving Factors, Process, and Impact of Permanent Relocation After Disaster. *The 2017 Association of Collegiate Schools of Planning Annual Conference*, Denver, CO.

[19] **Seong, K.**, and Van Zandt, S. (Jul. 2017). Micro-scale Hazard Mitigation Approach: Calculating Parcel-level Physical Vulnerability In and Outside Floodplain. *The 2017 Natural Hazards Workshop*, Broomfield, CO.

[20] **Seong, K.**, and Van Zandt, S. (Apr. 2017). Hazard Mitigation Strategies: Flood Buyout and Post-disaster Relocation in Austin's Onion Creek Neighborhood. *The NIST-Center of Excellence, Graduate and Post-Doctoral Poster Presentation Competition 2017*, Fort Collins, CO.

[21] **Seong, K.**, and Van Zandt, S. (Apr. 2017). Assessing Physical and Social Vulnerability of Neighborhoods After Floods Using Remote Sensing Imagery and GIS. *The 47th Annual Conference of the Urban Affairs Association*, Minneapolis, MN.

2016 [22] **Seong, K.** (Nov. 2016). Property Acquisitions for Low-income Homeowners in Onion Creek Neighborhood, Austin, Texas. *The GIS Day 2016 Poster Competition*, Texas A&M University, College Station, TX.

[23] **Seong, K.**, and Van Zandt, S. (Oct. 2016). Impact of Buyout and Relocation on Low-income Homeowners after Floods in Austin, Texas. *The 2016 Association of Collegiate Schools of Planning Annual Conference*, Portland, OR.

[24] **Seong, K.** (Oct. 2016). Impact of Buyout Programs on Low-income Homeowners: A Case Study of the Onion Creek Neighborhood, Austin, Texas. *The 18th Annual College of Architecture Research Symposium*, Texas A&M University, College Station, TX.

2011 [25] **Seong, K.**, and Park, S. (Oct. 2011). Historic Preservation Issues of Korean Historic Villages: The Case of Hahoe and Yangdong. *The Academic Conference on Architectural Institute of Korea*, Gyeongsan, South Korea.

RESEARCH PROJECTS AND WORK EXPERIENCES

2023 -   **NSF Convergence Accelerator Track J: Artificial-Intelligence-Based Decision Support for Equitable Food and Nutrition Security in the Houston Area**
Funded by the National Science Foundation (NSF)
- Researcher Fellow, The University of Texas at Austin, Austin, TX.
- Collect and map the data for assessing and modeling food deserts
- Develop prediction algorithms for food deserts
- Integrate these data with the data from the Tackle Hunger Map
- Developing Blockchain Technology for the Tackle Hunger Platform (Charity to Charity Trade)

2022 -   **A Good Systems for Smart Cities, the UT Good System Grand Challenge**
Funded by the University of Texas at Austin
- Postdoctoral Research Fellow, Urban Information Lab (UIL), The University of Texas at Austin, Austin, TX.
- Develop Austin Digital Twin
- Develop near real-time fire/smoke prediction model in Austin-Travis County, TX
- Develop heat vulnerability assessment and emergency medical services (EMS) incidents
Develop EMS route and location optimization

2022 -   **Spatiotemporal Climate Risk Vulnerability Assessment to Extreme Heat and Particulate Matter: Combining Realtime Concentration of De Facto Population**
Funded by Seoul Institute
- Principal Investigator (PI), Urban Information Lab (UIL), The University of Texas at Austin, Austin, TX.
- Led research design, funding coordination, analysis, and report writing.

2021 - 2022   **The Center of Excellence for Risk-Based Community Resilience Planning (2015-2025)**
Funded by the National Institute of Standards and Technology (NIST)
- Researcher Fellow, Hazard Reduction & Recovery Center (HRRC), Texas A&M University, College Station, TX.
- Develop the buyout model for Galveston testbed for hazard mitigation; contribute to the IN-CORE model building and collaborate with interdisciplinary scholars in civil engineering, sociology, economics, and computer science

2017 - 2021   **The Center of Excellence for Risk-Based Community Resilience Planning (2015-2025)**
Funded by the National Institute of Standards and Technology (NIST)
- Research Assistant, Hazard Reduction & Recovery Center, Texas A&M University, College Station, TX.
- Working with Dr. Shannon Van Zandt, Dr. Walter Peacock, and Dr. Nathanael Rosenheim
- Developed survey instruments, data cleaning and analysis for the Lumberton housing survey

2018 - 2019   **To Remain or Relocate? Long-term Mobility Decisions of Homeowners Exposed to Recurrent Hurricanes**
Funded by National Science Foundation (NSF), Natural Hazards Center. University of Colorado

Boulder, CO.
- Principal Investigator (Co-PI: Clare Losey), Texas A&M University, College Station, TX.
- Conducted research design, IRB protocol, fieldwork, in-depth interviews, data collection/analysis, and report writing

2017 - 2019 **Unprecedented Voluntary Acquisition and Relocation Program Redresses Decades of Racial and Environmental Injustice (Hillcrest Community, Corpus Christi, TX)**
- Researcher, Texas A&M University, College Station, TX.
- Collaborated with local non-profit organizations, Texas Housers Texas RioGrande Legal Aid
- Conducted research design, data analysis, assistance of internal meetings, and paper writing

2013 **Residential Mobility Patterns and its Characteristics in Seoul Metropolitan Area**
- Research Intern, The Seoul Institute, Seoul, South Korea
- Data collection and GIS analysis

2011 - 2012 **Namhansanseong: Ancient Fortified Military and Cultural Landscape of Mt. Namhansan**
- Researcher, Seoul National University, SNU R&DB Foundation, Seoul, South Korea
- Conducted a preliminary research on UNESCO World Heritage; organized public meetings

2011 - 2012 **The Preservation Management Manual for World Heritages in Korea**
- Researcher, Seoul National University, SNU R&DB Foundation, Seoul, South Korea
- Conducted research design, data analysis, and report writing

2010 - 2011 **Characteristics of International Preservation Principles**
- Research Assistant, Seoul National University, SNU R&DB Foundation, Seoul, South Korea
- Conducted preliminary study on world heritage principles

2010 **Preservation and Management Plan for World Heritages in Korea: Buffer Zone Development**
- Research Assistant, Seoul National University, SNU R&DB Foundation, Seoul, South Korea
- Writing a periodic report 2012 for world heritages in Korea

2008 **Construction Process Management for the Parc1 Project**
- Research Intern, SAMSUNG Construction Company, Seoul, South Korea
- Conducted fieldwork; assisted in the construction process management

2006 **Main Street Design for Yeongdeungpo-gu, Seoul**
- Design Intern, Iroje Architects & Planners, Seoul, South Korea
- Assisted modeling and AUTOCAD drawing; assisted design work

TEACHING EXPERIENCES AND INVITED LECTURES

Lecturer	**URPN202 Building Better Cities** (Fall 2021)
	Undergraduate course for contemporary issues of urbanization and urban planning process
	URPN340 Housing and Community (Fall 2021)
	Undergraduate course for housing policy; housing finance; and the housing market
Instructor	**URPN202-501 Building Better Cities** (Fall 2018)
	Introductory course for contemporary issues of urbanization and urban planning process
Teaching Assistant	**CARC601 Research Foundations** (Fall 2016)
	Serving as a discussion facilitator
	Assisting course materials and equipment
	URPN 460 Sustainable Communities (Fall2015 - Spring 2016)
	Serving as a primary grader
Guest	**Smart and Resilient Cities: Mitigating the Risks of Climate Change** (Spring 2024)

Lecturer	LA329 Global Learning Seminar, Instructor: Dr. Junfeng Jiao, The University of Texas at Austin
	Resilient Smart Cities: Technologies in Climate Change Adaptation (Spring 2024)
	LA329 Global Learning Seminar, Instructor: Dr. Junfeng Jiao, The University of Texas at Austin
	Smart City Framework for Disaster Resilience (Spring 2024)
	CRP395D Smart City Practicum, Instructor: Dr. Junfeng Jiao, The University of Texas at Austin
	Smart and Resilient Cities (Spring 2022)
	BDP 319 Smart City: Evaluate, Design and Build A Smart City and Community, Instructor: Dr. Junfeng Jiao, The University of Texas at Austin
	Urban-GIS: GIS and Environmental Analysis (Spring 2022)
	CRP 386 Urban Geographic Information Systems, Instructor: Dr. Junfeng Jiao, The University of Texas at Austin
	Urban Problems: Hazards and Social Vulnerability (Fall 2021)
	GEOG 199 Urban Issues & Sustainability, Instructor: Dr. Boah Kim, Bridgewater State University
	Systematic Literature Review (Fall 2021)
	CARC601 Research Foundations, Instructor: Dr. Shannon Van Zandt, Texas A&M University
	Systematic Literature Review (Fall 2018)
	CARC601 Research Foundations, Instructor: Dr. Shannon Van Zandt, Texas A&M University
	Disaster Recovery and Resilience in Urban Planning (Spring 2018)
	URPN202-501 Building Better Cities, Instructor: Dr. Boah Kim, Texas A&M University
	American Industrial Cities/ Google Earth (Spring 2018)
	URPN201-501 Evolving Cities, Instructor: Emily Tedford, Texas A&M University
	Community Resilience for Better Cities (Fall 2017)
	URPN202-501 Building Better Cities, Instructor: Dr. Boah Kim, Texas A&M University
	Disaster Planning and Neighborhood Revitalization (Spring 2017)
	PLAN629 Neighborhood Revitalization, Instructor: Dr. Boah Kim, Texas A&M University
Guest Panelist	**CRP395D Smart City Practicum**, Final Review (Spring 2024)
	Instructor: Dr. Junfeng Jiao, The University of Texas at Austin
	CRP395C Smart City Practicum, Final Review (Fall 2022)
	Instructor: Dr. Junfeng Jiao, The University of Texas at Austin
	LAND311 Landscape Design III, Final Presentation (Fall 2017)
	Instructor: Dr. Galen Newman & Dr. Ryun Jung Lee, Texas A&M University
	PLAN 667 Site Planning, Final Presentation (Spring 2016)
	Instructor: Dr. Yunmi Park, Texas A&M University
Invited Talk	Smart Austin: A Digital Twin Approach for Real-time Monitoring, Decision Support, and Public Safety Enhancement. 2024 Good System Annual Symposium. The University of Texas at Austin, Austin, Texas. (Spring 2024)
	Heat Vulnerability and EMS Response in Austin: Uncovering spatial disparities and shaping resilience strategies. 2023 Texas Water Research Network Meeting. Virtual. (Fall 2023)
	Spatiotemporal Climate Risk Vulnerability Assessment to Extreme Heat and Particulate Matter: Combining Realtime Concentration of De Facto Population
	ELTEC College of Engineering, Architectural and Urban System Engineering, Ewha Womans University, Seoul, South Korea. (Fall 2022)
Teaching Certificate	**The Academy for Future Faculty (AFF) Fellow Certificate** (Spring 2018)
	The Center for Teaching Excellence, Texas A&M University

AWARDS AND HONORS

2020 - 2021	**Texas A&M University 2020-2021 Dissertation Fellowship** Texas A&M University (university-wide). 12-month stipend + tuition waiver. College Station, TX.
2017 - 2018	**Urban and Regional Science Doctoral Department Scholarship** School of Architecture, Texas A&M University, College Station, TX, United States
2017	**National Science Foundation Partnerships for International Research and Education:** **Full-funded Field Research in the Netherlands (Coastal Flood Risk Reduction Travel Program)** Texas A&M University at Galveston, Galveston, TX, United States
2015	**International Urban Design Trend Report, the 3rd Award** Seoul Design Foundation, Seoul, South Korea.
2015	**International Student & Scholar Services (ISSS) Scholarship** ISSS Committee, University of Texas, Austin, TX, United States.
2014	**Potter Rose Graduate Fellowship** School of Architecture, University of Texas, Austin, TX, United States.
2014	**Mebane Scholarship** School of Architecture, University of Texas, Austin, TX, United States.
2010 - 2011	**Merit Scholarship** Dept. of Architecture, Seoul National University, Seoul, Korea.
2010	**Excellence Prize,** Graduate Thesis Competition of Historic City Policy Korean Cultural Heritage Administration, Seoul, Korea.
2004 - 2009	**Merit Scholarship** Dept. of Architecture, Yonsei University, Seoul, Korea.
2008	**Global Intern Scholarship** College of Engineering, Yonsei University, Seoul, Korea.
2007	**Excellence Prize** in Architectural Design Project for Senior Housing Dept. of Architecture, Yonsei University, Seoul, Korea.
2006	**Semester High Honor** Dept. of Architecture, Yonsei University, Seoul, Korea.

MENTORSHIP

2024	**Undergraduate Students** Akhil Mandalapu (Public Health), The University of Texas at Austin (Supervisor) Shashank Kota (Computer Science), The University of Texas at Austin (Project Mentoring)
2022 -2023	**Undergraduate Students** Akhil Mandalapu (Public Health), The University of Texas at Austin (Thesis, Research Mentoring) Ryan Hardesty Lewis (Mathematics), The University of Texas at Austin (Project Mentoring)

SERVICES AND ORGANIZATIONAL ACTIVITIES

2024	**Program Coordinator, Smart Cities and AI Innovations Symposium 2024** **(May. 2, 2024, https://smartcitiessymposium2024.splashthat.com/)** The University of Texas at Austin, Austin, TX.
2023	**Program Coordinator, Smart Cities and Generative AI Symposium 2023** **(Aug. 18, 2023, https://smartcitiessymposium.splashthat.com/)** The University of Texas at Austin, Austin, TX.

2023-	**Council Liaison, A Good System for Smart Cities Advisory Group**
	The University of Texas at Austin, Austin, TX.
2022-	**Program Organizer and Moderator, Good Systems Smart Cities Talk Series**
	The University of Texas at Austin, Austin, TX.
2019 - 2020	**Student Member, Tenure-Track Faculty Search Committee**
	Dept. of Landscape Architecture and Urban Planning, Texas A&M University, College Station, TX.
Fall 2019	**Presenter, COA Colloquium "Care and Feeding of Graduate Advisors: How to Manage your Mentor"**
	Co-presented with Dr. Shannon Van Zandt, Clare Losey, Kijin Seong, Chandler Wilkins.
	College of Architecture, Texas A&M University, College Station, TX.
Fall 2018	**Student Session Organizer, The Center of Excellence for Risk-Based Community Resilience Planning**
	Interactive Glossary Session at NIST CoE Semi-Annual Meeting, Gaithersburg, MD.
Feb 2018	**Presenter, URSC Student Organization Brown Bag Seminar. "Conducting an Interdisciplinary Field Study"**
	Co-presented with Watson, Maria, Kai Wu, Donghwan Gu.
	Dept. of Landscape Architecture and Urban Planning, Texas A&M University, College Station, TX.
2016 - 2017	**President, LAUP Korean Student Association**
	Dept. of Landscape Architecture and Urban Planning, Texas A&M University, College Station, TX.
2014 - 2016	**Foreign Correspondent**
	Seoul Metropolitan Government / Seoul Design Foundation.
2014 - 2015	**Dean's Ambassador**
	School of Architecture, University of Texas at Austin, TX.
2011	**Volunteer for NGO Support**
	Management and improvement of cultural heritage sites, Arumjigi (NGO), South Korea.
2010	**Program Manager**
	International Workshop, Youth in Community Action "Youth Working Together for Sustainable Communities," organized by the Korean National Commission for UNESCO, Gyeongju, Korea.
2008 - 2009	**Volunteer for NGO Support**
	Cityscape Trust Movement for Bukahyun-dong residential district and Nakwonsangga, organized by CultureLEC (NGO), Seoul, South Korea.

MEDIA COVERAGE

Aug. 2023	"Why one Austin neighborhood suffers more from this extreme heat than others in the city," Texas Standard: The National Daily New Show of Texas. (https://www.texasstandard.org/stories/heat-island-effect-east-austin-neighborhood-extreme-hot-summer/)

CERTIFICATES

Mar. 2023	Supervised Machine Learning: Regression and Classification. (https://www.coursera.org/learn/machine-learning/)
June. 2024	American Institute of Certified Planner (AICP)

PROFESSIONAL AFFILIATIONS

Member of the Association of Collegiate Schools of Planning (ACSP), USA
Member of the American Planning Association (APA), USA
Member of the Urban Affairs Association (UAA), USA
Member of the American Association of Geographers (AAG), USA
Reviewer of Environment and Planning B: Urban Analytics and City Science (EPB)
Reviewer of the 1st International Symposium on Trustworthy Autonomous Systems (TAS '23)
Reviewer of the 2nd International Symposium on Trustworthy Autonomous Systems (TAS '24)
Reviewer of Computers, Environment and Urban Systems (CEUS)
Reviewer of the International Journal of Environmental Research and Public Health (IJERPH)
Reviewer of Journal of Planning Literature (JPL)
Reviewer of the International Journal of Disaster Risk Reduction (IJDRR)
Reviewer of Journal of Planning Education and Research (JPER)

GRAPHIC AND RESEARCH SKILLS

Analysis Software/Computational Language | STATA, Python, R, ArcGIS PRO, Atlas.ti, SPSS, ENVI
Design Software | Adobe InDesign/Illustrator/Photoshop, SketchUp, Google Earth Pro, AutoCAD
Documentation Software | Microsoft Office Suite