

AKHIL MANDALAPU

EDUCATION

Harvard Medical School
Doctor of Medicine

August 2024 - Present
Boston, MA

The University of Texas at Austin
Bachelor of Science in Public Health, Highest Honors

May 2023
Austin, TX

RESEARCH

Peer-Reviewed Publications

- **Mandalapu A.**, Seong K., Jiao J., (2024). Evaluating urban fire vulnerability and accessibility to fire stations and hospitals in Austin, Texas. PLOS Clim 3(7): e0000448. doi:10.1371/journal.pclm.0000448
- Seong K., Jiao J., **Mandalapu A.**, Niyogi D. (2024). Spatio-temporal patterns of heat index and heat-related Emergency Medical Services (EMS). Sustainable Cities and Society. 2024; 111:105562. doi:10.1016/j.scs.2024.105562.
- Seong K., Jiao J., **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. 2023; 20(19):6853. doi:10.3390/ijerph20196853 PMID: PMC10572679
- Seong, K., Jiao, J., **Mandalapu, A.** (2023). Effects of Urban Environmental Factors on Heat-related Emergency Medical Services (EMS) Response Time. Applied Geography, Vol. 155, 102956. doi:10.1016/j.apgeog.2023.102956
- Seong, K., Jiao, J., **Mandalapu, A.** (2023). 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, 0(0). doi:10.1177/23998083221129618
- **Mandalapu, A.** Jiao, J., Azimian, A. (2022). Exploring the Relationship between Air Pollution and COVID-19 Death Rate: A Case Study in Los Angeles County, California. International Journal of Geospatial and Environmental Research: Vol. 9: No. 1, Article 4. <https://dc.uwm.edu/ijger/vol9/iss1/4>
- Jiao,J., Bhat, M.R., Azimian, A., **Mandalapu, A.**, Farahi, A. (2022). Housing Market Price Movements Under Tech Industry Expansion During COVID-19. International Journal of Housing Markets and Analysis, Vol. 16 No. 3, pp. 628-641. doi: 10.1108/IJHMA-02-2022-0022
- Ambati, C. R, Vantaku, V., Donepudi, S. Ramya, Amara, C. Sekhar, Ravi, S. Shankar, **Mandalapu, A.**, Perla, M., Putluri, V., Sreekumar, A., Putluri, N. (2018). Measurement of methylated metabolites using liquid chromatography-mass spectrometry and its biological application. Analytical methods, 11, 49-57. doi: 10.1039/c8ay02168f

Presentations

- Seong K., Jiao J., **Mandalapu A.** (2024). The Legacy Effect of Redlining on Disaster Risk and Community Resilience. Presented at the Association of Collegiate Schools of Planning Annual Conference
- **Mandalapu, A.**, Petruzzi LJ., Vetter, IL, Garay, R., Valdez, C., Cook, R., Mercer,T. (2023). The Role of United States Academic Medical Institutions in Supporting Community Health Worker Programs: Results from a Systematized Review. Presented at the American Public Health Association Annual Conference.
- **Mandalapu, A.** (2023) Evaluating Descriptive and Predictive Spatial Models of Emergency Medical Services Demand During Extreme Heat Events in Austin, TX. Presented at Planet Texas 2050 Research Symposium.
- **Mandalapu, A** , Tamma, S., Bhavani, N. Kim, E., Robinson, L., Rubarth, C. (2023). Connecting with the Community: Understanding and Improving Community Health Worker Workflows. 2023 Innovations in Health Science Education Annual Conference.
- Kovaric, K., Luk, J., Phelps, N., Wilkerson,M., Navales, J., **Mandalapu, A.**, Wilkerson, L. (2022). Can a Quality Improvement Curriculum Improve Community Health Outcomes?. Presented at 2022 Dell Med Educational Innovation, Research and Awards Symposium.

- **Mandalapu, A.**, Calzadilla, S., and Mondesire, S. (2020). "Image Classification of High-Performance Liquid Chromatography Chromatograms with Neural Networks," 2020 International Conference on Computational Science and Computational Intelligence (CSCI), pp. 1647-1652, doi: 10.1109/CSCI51800.2020.00303.

EXPERIENCES

Undergraduate Research Assistant

Apr 2021 - Aug 2024

Urban Information Lab, School of Architecture, the University of Texas at Austin

Austin, TX

- Lead fire vulnerability characterization project using machine learning to develop a fire vulnerability index
- Led data processing and analysis using R and Pandas to compile statistics for four projects on extreme heat vulnerability and EMS accessibility
- Led project investigating the relationship between COVID-19 death rate and air quality using ArcGIS Pro

Health Leadership Apprenticeship

Jul 2021 - Jul 2024

Dell Medical School, the University of Texas at Austin

Austin, TX

- Led systematic review to advocate for the role of academic medicine in supporting community health workers
- Collaborated with community health workers to support their needs and propose institutional policy to support their work
- Designed a public health intervention focused on improving the health identity and self-efficacy of college students to promote improving physical health
- Advocated for new course credit option public health students working with the Department of Population Health

Clinical Research Coordinator

May 2023 - May 2024

Department of Urology, Baylor College of Medicine

Houston, TX

- Educate patients throughout the process of various bladder cancer procedures, coordinate post-operative care
- Ensure compliance with Institutional Review Board protocols and consent eligible patients to research studies
- Integrated multiple clinical databases to accelerate translational research projects

Undergraduate Course Assistant

Aug 2022 - May 2023

Department of Public Health, the University of Texas at Austin

Austin, TX

- Served as a grader for an upper-division Health Systems and Health Policy course
- Led office hours, course review sessions and coordinated assessments with instructor
- Proposed course modifications to increase student engagement

Undergraduate Course Assistant

Aug - Dec 2021, 2022

College of Natural Sciences Honors Office, the University of Texas at Austin

Austin, TX

- Led weekly meetings as a peer mentor for UGS 303: Originality in the Arts & Sciences
- Served as a mentor and facilitator for two cohorts of 5 first-year students
- Advocated for needs of first-year students

Summer Research Intern

Jun 2021 - Aug 2021

Office of the Dean of Students, the University of Texas at Austin

Austin, TX

- Conducted several qualitative data analyses of peer institutions
- Wrote two policy briefs to inform new policy directions for the UT Outpost, a food pantry for students, and Veteran and Military Affiliated Services

EXTRACURRICULAR ACTIVITIES

Volunteer

Jan 2023 - Aug 2024

Houston Food Bank

Houston, TX

- Train fellow volunteers in food bank protocols
- Lead team of volunteers to effectively recycle packaging and minimize waste
- Assembled meal kits in the kitchen and sorted donations in the warehouse

Team Mentor and Volunteer

May 2020 - May 2024

Discobots

Houston, TX

- Use expertise developed from competing in VEX Robotics for 5 years to mentor several high school robotics teams in Houston and university teams in Austin and College Station, TX
- Served as head judge at local tournaments to facilitate interest in STEM from underrepresented groups
- Interviewed teams on the engineering design process at the World Championship 2022 and 2023

Volunteer

Nov 2022 - Apr 2024

C.D Doyle Clinic

Austin, TX

- Led initiative to educate residents about extreme heat events and distributed resource kits to help protect against extreme heat
- Volunteer in various roles at the C.D Doyle Clinic, a student-run clinic for individuals experiencing homelessness in Austin, TX
- Take patient vitals and guided patients to various social services

Content Creator Lead

Oct 2021 - May 2023

Environmental Justice Collective

Austin, TX

- Designed social media content to organically grow social media following by 75%
- Led promotional material design for Red Alert, a campaign to raise awareness of period poverty, sustainable menstrual products and the stigma around menstruation
- Designed promotional content to engage UT Austin community in discussions around environmental justice topics

Hospital Volunteer

Jan 2022 - Jan 2023

Ascension Seton

Austin, TX

- Attended call lights, addressed patient needs and restocked nurse carts in the Surgical ICU
- Provided patient wayfinding services and answered patient questions at front desk
- Coordinated consults between physicians and monitored patients in the emergency department

Volunteer Contact Tracer

Aug 2021 - Feb 2022

UT Health Austin

Austin, TX

- Contact traced for COVID-19 within the UT Austin and surrounding community for 8 hours/week for over 10 weeks
- Provided recommendations and resources for over 170 close contacts and cases of COVID-19

Webmaster, Council Member

Aug 2020 - May 2023

Dean's Scholars Student Association

Austin, TX

- Led and organized Deanslympics, Graduate Student Panel, and Spring Peer Advising events, social and advising events for students in the Dean's Scholars Program and in the College of Natural Sciences
- Led a redesign of the Dean's Scholars website to better meet the needs of alumni, current and prospective students
- Mentor 8 new students in the Dean's Scholars program and help them get adjusted to life in college and serve as a resource for advice on courses, research, and opportunities at UT Austin

Documentation Team Lead

May 2020 - May 2021

SPARK Robotics

Austin, TX

- Head of documentation for a college-level robotics team of 8 students
- Wrote over 150 progress reports by consulting engineers and programmers to communicate team progress
- Won prestigious Design Award at the Regional Championship and at the World Championship

AWARDS

- Dean's Scholars Honors Program (2020 - 2023)
- College of Natural Sciences Distinction in Entrepreneurship (2023)
- College of Natural Sciences Distinction in Diversity, Equity and Inclusion (2023)
- Undergraduate Research Fellowship (2022)
- Dr. Anson L. Clark Endowed Presidential Scholarship (2022)
- Mary E. Gearing Human Ecology Council Scholarship (2022)
- Distinguished College Scholar (2022, 2023)
- College of Natural Sciences Second Year Excellence Award (2022)
- VEX Robotics Design Award World Championship - VEXU (2021)
- VEX Robotics Design Award State Championship - VEXU (2021)