

Peter J. Crank, Ph.D.

Assistant Professor, Oklahoma State University
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EDUCATION

- 2021 Ph.D. Geography
School of Geographical Sciences and Urban Planning
Arizona State University
Dissertation: Cityscapes, Climate, and Mental Health: Prioritizing Thermal and Mental Wellbeing in the Design of Cities
- 2016 M.S. Geosciences
Department of Geosciences
Mississippi State University
- 2013 B.S. Geosciences
Department of Geosciences
Mississippi State University

Positions Held

- 2022
(Aug) Assistant Professor
Department of Geography
College of Arts & Sciences
Oklahoma State University
- 2021-2022 Research Fellow
College of Integrative Studies
Singapore Management University
- 2021-2021 Graduate Research Associate
The Design School
Arizona State University
- 2019-2021 Healthy Urban Environments (HUE) Researcher
Global Institute of Sustainability
Arizona State University
- 2018-2019 Graduate Teaching Associate
School of Geographical Sciences and Urban Planning
Arizona State University
- 2016-2019 Graduate Research Associate
School of Geographical Sciences and Urban Planning
Arizona State University

2014-2016 Graduate Research Assistant
Department of Geosciences
Mississippi State University

PUBLICATIONS

Google Scholar: scholar.google.com/citations?user=3Jz6xMUAAAAJ&hl

Scopus: scopus.com/authid/detail.uri?authorId=57203780668

Refereed Publications

Dzyuban, Y.; Tan, A.; Ching, G.; Sin Kang, T; Banerjee, S.; **Crank, P.J.**; Chow, W.T.L. (2022). *Sentiment Analysis of Weather-related Tweets in Hot Climates*. Weather, Climate, and Society. Accepted.

Dzyuban, Y., Ching, G. N. Y., Yik, S. K., Tan, A. J., Banerjee, S., Crank, P. J., & Chow, W. T. L. (2022). Outdoor thermal comfort research in transient conditions: A narrative literature review. *Landscape and Urban Planning*, 226, 104496. <https://doi.org/10.1016/j.landurbplan.2022.104496>

O'Lenick, C. R.; Baniassadi, A.; Michael, R.; Monaghan, A.; Boehnert, J.; Yu, X.; Hayden, M.H.; Wiedinmyer, C.; Zhang, K.; **Crank, P.J.**; Heusinger, J.; Hoel, P.; Sailor, D.J.; Wilhelmi, O.V. (2020). *A case-crossover analysis of indoor heat exposure on mortality and hospitalizations among the elderly in Houston, Texas*. *Environmental Health Perspectives*. <https://doi.org/10.1289/EHP6340>.

Crank, P.J.; Middel, A.; Wagner, M.; Hoots, D.; Smith, M.; Brazel, A. (2020). *Validation of Seasonal Mean Radiant Temperature Simulations in Hot Arid Tempe, Arizona*. *Science of the Total Environment*. <https://doi.org/10.1016/j.scitotenv.2020.141392>

Baniassadi, A.; Sailor, D. J.; O'Lenick, C. C.; **Crank, P.J.**; Reddy, A. T.; Chester, M. M.; Wilhelmi, O. V. (2020) *Effectiveness of Mechanical Air Conditioning as a Protective Factor Against Indoor Exposure to Heat Among the Elderly*. *ASME Journal of Engineering for Sustainable Buildings and Cities*. <https://doi.org/10.1115/1.4045678>.

O'Lenick, C.R.; Wilhelmi, O.V.; Michael, R.; Hayden, M.H.; Baniassadi, A.; Wiedinmyer, C.; Monaghan, A.J.; **Crank, P.J.**; Sailor, D.J. (2019). *Urban heat and air pollution: a framework for integrating population vulnerability and indoor exposure in health risk analyses*. *Science of the Total Environment*. <https://doi.org/10.1016/j.scitotenv.2019.01.002>

Taleghani, M.; **Crank, P.J.**; Mohegh, A.; Ban-Weiss, G.; Sailor, D.J. (2019). *The impact of heat mitigation strategies on the energy balance of a neighborhood in Los Angeles*. *Solar Energy*. <https://doi.org/10.1016/j.solener.2018.11.041>

Ban-Weiss, G.; Cartalis, C.; **Crank, P.J.**; Kolokotsa, D.; Morakinyo, T.E.; Muscio, A.; Ng, E.; Osmond, P.; Paolini, R.; Pisello, A.L.; Rossi, F.; Sailor, D.J.; Santamouris, M.; Synnefa, A.; Taha, H.; Takebayashi, H.; Zinzi, M.; Zhang, J.; Zheng, T. (2018). *Progress in Urban Greenery Mitigation Science – Assessment Methodologies, Advanced Technologies, and Impact on Cities*. J. Civil Environmental Engineering and Management. <https://doi.org/10.3846/jcem.2018.6604>

Crank, P.J.; Sailor, D.J.; Ban-Weiss, G.; Taleghani, M. (2018). *Evaluating the ENVI-met microscale model for suitability in analysis of targeted urban heat mitigation strategies*. Urban Climate. <https://doi.org/10.1016/j.uclim.2018.09.002>

Baniassadi, A; Sailor, D.J.; **Crank, P.J.**; Ban-Weiss, G. (2018). *Direct and indirect effects of high-albedo roofs on energy consumption and thermal comfort of residential buildings*. Energy and Buildings. <https://doi.org/10.1016/j.enbuild.2018.08.048>

Data Publications

Crank, P.J., A. Middel, D. Hondula, and D.J. Sailor. 2022. A multi-instrument thermal profile of Edison Eastlake, a Phoenix, Arizona, USA neighborhood, on a summer day in 2019 ver 1. Environmental Data Initiative. <https://doi.org/10.6073/pasta/432f65d654bb680e8cf00a19c6b4f089> (Accessed 2022-05-06).

Wright, M., **P.J. Crank**, A. Middel, D. Hondula, and D. Sailor. 2022. Fine-scale meteorological observations from walking traverses in two Phoenix Area Social Survey (PASS) 2017 neighborhoods (2019) ver 2. Environmental Data Initiative. <https://doi.org/10.6073/pasta/1b99b4486d7bbe2a74c7c09c2ceae643> (Accessed 2022-02-21)

Book Publications

Fischer, H.A.; **Crank, P.J.**; Heintzman, R.; Smith, J.P. (2018). *Introduction to Physical Geography Lab Manual*. Twelfth Edition, Arizona State University. Editor.

Manuscripts in Review

Crank, P. J.; Middel, A.; Sailor, D. J.; Coseo, P. *Assessing Microclimate Impacts of Neighborhood Redesign in a Desert Urban Climate Using ENVI-met and MaRTy*. Urban Climate. Under Review.

Crank, P. J.; Hondula, D. M.; Sailor, D. J. *Mental Health and Air Temperature: A Distributed Lagged Non-Linear Model Approach to Risk and Mitigation for Schizophrenia Hospitalization Admissions in Arid Urban Climates*. Environmental Research. Under Review.

Banerjee S., Ching, G.N.Y., Yik, S.K., Dzyuban, Y.; **Crank, P.J.**; Chow, W.T.L. *Analysing impacts of urban morphological variables and density on outdoor*

microclimate for tropical cities: A review and a framework proposal for future research directions. Building and Environment. Submitted.

Manuscripts in Preparation

Crank, P. J.; Coseo, P. *Cityscapes, Climate, and Mental Health: Designing cities for thermal wellbeing.* Urban Climate. In preparation.

Crank, P.J.; Olenick, C. C.; Wilhelmi, O. V.; Hayden, M.; Sailor, D.J. *Mixed effect logistic regression modeling of extreme heat and poor air quality risk among older adults in three sunbelt cities.* Journal of Gerontology Series A. In Preparation.

Wright, M. K.; **Crank, P. J.;** Middel, A.; Sailor, D. J.; Hondula, D. M. *A comprehensive assessment of the thermal environment of two PASS neighborhoods.* In Preparation.

Grey Literature Publications

Crank, P.J. (2016). *Thermal variation and the built environment of Jackson, Mississippi.* Mississippi State University. Master's Thesis.

Messerschmidt, M.; Grimm, N.; Hondula, D. M.; Feagan, M.; Beute, S.; Berisha, V.; White, J.; Guardaro, M.; Perea, M.; Ramirez, M.; Olivas, E.; Bueno, J.; Crummey, D; Winkle, R.; Rothballer, K.; Mocine-McQueen, J.; Maurer, M.; Coseo, P.; **Crank, P. J.;** McCauley, L. (2019). *Heat Action Planning Guide for Neighborhoods of Greater Phoenix: Creating Urban Heat Solutions in the Valley of the Sun.* The Nature Conservancy. <https://repository.asu.edu/items/54600>

SELECTED ACADEMIC AND RESEARCH AWARDS/HONORS

2020	Professional Development Award	SGSUP
2020	Graduate Writing Camp Scholarship	Graduate College
2020	Achievement & Appreciation of Service Award	GPSA
2020	Graduate College Fellowship	Graduate College
2020	Graduate Student Service Award	SGSUP
2019	Student College Leader	The College
2019	ASU United Nations Climate Change Delegate	The United Nations
2019	Grad Excellence Award	The College
2019	Graduate College Fellowship	Graduate College
2019	Honorable Mention Research Poster	ISSR
2019	Operations Comm. Member of the Year	GPSA
2019	Research Poster Award	SGSUP
2019	Semi-Finalist	J. William Fulbright
2019	Graduate College Fellowship	Graduate College
2018	Best Oral Presentation	IAUC/AMS
2016	Graduate Student Fellowship	SGSUP

2016	John F. Lounsbury Travel Fellowship	SGSUP
2015	Charles L. Wax Endowed Scholarship	DoG, MSU

2015-2020 Total Honors: \$34,000

GRANTS AND FELLOWSHIPS

2020	Awarded	Graduate Completion Fellowship	ASU	\$8,550
2019	Awarded	Healthy Urban Environments	ASU	\$49,350
2019	Awarded	NSF CAP LTER Graduate Grant	ASU	\$6,000
2017	Awarded	Melvin G. Marcus Fellowship	ASU	\$2,000
				\$65,900

INVITED TALKS

2022

June

“Tree and Parks: What are the OTC Impacts?”

Common Ground Seminar. Cooling Singapore 2.0.
Singapore Management University.

2021

March

“Cityscapes, Urban Climate, and Mental Health”

Common Ground Seminar. Cooling Singapore 2.0.
Singapore Management University.

February

“Urban Climate and Human Health”

Urban Climatology, ESSI 8040. Department of Geosciences.
Auburn University.

CONFERENCE PRESENTATIONS (* denotes award-winning presentations)

2022

Presenting Author

August

“Mental Health and Heat: Attributable Risk Analysis for Schizophrenia Hospital Admissions in Arid Urban Climates”

2022 IAUC Virtual Poster Conference

Co-Author

August

“Transforming the City into a Garden: Simulating the cooling effects of vegetation in tropical Singapore on ENVI-met”

2022 IAUC Virtual Poster Conference

Co-Author

August

“Observing the Park Cool Island in the Tropics: A Case Study in Singapore”

2022 IAUC Virtual Poster Conference

Co-Author

August

“Sentiment Analysis of Weather-Related Tweets from Cities within Hot Climates”

2022 IAUC Virtual Poster Conference

2021

Co-Presenting Author

September

“Responding to Shade: Connecting Ecological and Social Landscapes to the Thermal Environments of Neighborhoods in Phoenix, Arizona”

22nd Congress of the International Society of Biometeorology

Co-Author

September

“Sentiment Analysis of Weather-related Tweets in Hot Climates”

22nd Congress of the International Society of Biometeorology

Co-Presenting Author

January

“Responding to Shade: Connecting Ecological and Social Landscapes to the Thermal Environments of Neighborhoods in Phoenix, Arizona”

American Meteorological Society Annual Meeting

2020

Presenting Author

October

“Distributed Lagged Non-Linear Model Approach to Risk and Mitigation for Schizophrenia Hospitalization Admissions in Arid and Urban Climates”

Urban Climate Research Center Poster Symposium

Presenting Author

October

“Responding to shade: connecting ecological and social landscapes to the thermal environments of neighborhoods in Phoenix, Arizona”

Urban Climate Research Center Poster Symposium

Presenting Author

April

“Mental Health and Heat: Risk and Mitigation in Arid and Urban Climates”

Institute for Social Science Research Symposium

Presenting Author

April

“Urban Landscapes and Mental Health: A commentary on approaches in urban planning and design for addressing urban mental wellbeing”

51st Environmental Design and Research Association Conference

Presenting as Co-Authors

January

“A comprehensive assessment of the thermal environment of two PASS neighborhoods Central Arizona-Phoenix”

Long-Term Ecological Research Program All Scientists’ Meeting

Presenting Author

January

“Mental Health and Heat: Risk and Mitigation in Arid and Urban Climates”

Annual Meeting of the American Meteorological Society

2019

Co-Author

December

“Extent vs Impact: A modelling study of Targeted Heat Mitigation Strategies”

5th International Conference on Countermeasures to Urban Heat Islands (IC2UHI)

Presenting Author

April

“An Evaluation of Mean Radiant Temperature Estimations in an Arid Urban Climate” *

Institute for Social Science Research Spring Symposium

Presenting Author

April

“Evaluating Targeted Heat Mitigation Strategies for Low Income Neighborhoods in Los Angeles County”.

Annual Meeting of the American Association of Geographers

Co-Author

March

“Evaluating Targeted Heat Mitigation Strategies for Low Income Neighborhoods in Los Angeles County”

Urban Climate Research Center Annual Symposium

Presenting Author

March

“Evaluating Targeted Heat Mitigation Strategies for Low Income Neighborhoods in Los Angeles County” *

School of Geographical Sciences and Urban Planning Research Symposium

Presenting Author

January

“Feasibility Study on Integrating Public Transport Vehicles for Heat Mapping Purposes”

Annual Meeting of the American Meteorological Society

Co-Author

January

“Nature’s Cooling Systems: Modeling Neighborhood-Built Redevelopment and Greening”

Annual Meeting of the American Meteorological Society

2018

Presenting Author

December

“An Evaluation of Mean Radiant Temperature Estimations in an Arid Urban Climate”

American Geophysical Union Annual Meeting

Co-Author

December

“Extreme Heat and Ozone in Houston: Assessing and Reducing Health Risks”

American Geophysical Union Annual Meeting

Presenting Author

August

“Behaviors and risk perceptions of elderly populations in the face of extreme heat and poor air quality — a comparison across three sunbelt cities” *

International Conference for Urban Climate

Presenting Author

April

“Behaviors and risk perceptions of elderly populations in the face of extreme heat and poor air quality — a comparison across three sunbelt cities”

Institute for Social Science Research Spring Symposium

Presenting Author

April

“Building properties of elderly populations in the face of extreme heat and poor air quality — a comparison across three sunbelt cities”

Urban Climate Research Center Annual Symposium

2017

Presenting Author

January

“Simulating the Efficacy of Targeted Urban Heat Mitigation for Vulnerable Populations”
Annual Meeting of the American Meteorological Society

Co-Author

January

“Spatial and Temporal Effects of Irrigation on Neighborhood-Scale Thermal Environments”
Annual Meeting of the American Meteorological Society

CAMPUS PRESENTATIONS

2020

“Climate, climate change, and mental health”

November

Climate Change and Health, SOS 591
School of Sustainability
Arizona State University

“R for Geographers and Urban Planners”

May

School of Geographical Sciences and Urban Planning
Arizona State University

2019

“Climate, climate change, and mental health”

November

Climate Change and Health, SOS 591
School of Sustainability
Arizona State University

2018

“Weather, climate, and their differences”

October

School of Geographical Sciences and Urban Planning
Arizona State University

“Introduction to R”

February

GISER-CAP LTER-UCRC
Arizona State University

“Introduction to R”

February

RESEARCH EXPERIENCE

- 2022-current Assistant Professor. Department of Geography, Oklahoma State University.
Tenure-track professor in physical geography and climatology. Focused on the impacts of urban climate and heat on human health at the micro-scale. <https://experts.okstate.edu/peter.crank>
- 2021-2022 Research Fellow. Cooling Singapore 2.0, Singapore Management University.
Developing, calibrating, and validating vegetation impacts on the urban climate via numerical modeling and in situ data collection for the Singaporean National Research Foundation's *Cooling Singapore 2.0* grant. <https://www.coolingsingapore.sg/the-project>
- 2020-2021 Graduate Research Associate. The Design School, Arizona State University.
Data processing, managing, and dissemination for projects involving The Design School and the City of Tempe research on shade and outdoor thermal comfort.
- 2020-2020 Urban Climate Curriculum Developer. Urban Climate Research Center, Arizona State University.
Developing online undergraduate coursework in urban climates. Designing short courses to be implemented as continuing education credits for professional certifications.
- 2019-2021 Healthy Urban Environments (HUE) Researcher. Global Institute for Sustainability, Arizona State University.
Researching the thermal comfort impacts of green redesigns for low-income housing in Phoenix, AZ alongside the city's Housing Department and The Nature Conservancy. <https://sustainability.asu.edu/research/project/healthy-urban-environments-initiative/>
- 2019-2019 CAP LTER Researcher. Global Institute for Sustainability, Arizona State University.
Summer graduate researcher collecting data on thermal comfort in various neighborhoods in Phoenix for the NSF funded Central Arizona-Phoenix Long-Term Ecological Research (CAP LTER) project.
- 2018-2019 Research Associate. Urban Climate Research Center, Arizona State University.
Targeted heat mitigation strategies for vulnerable neighborhoods of Los Angeles, CA, USA and HOME-Air study in Houston, TX, USA with Dr. David J. Sailor. <https://sustainability.asu.edu/urban-climate>

2016-2018 Research Assistant. Urban Climate Research Center, Arizona State University.

Targeted heat mitigation strategies for vulnerable neighborhoods of Los Angeles, CA, USA and HOME-Air study in Houston, TX, USA with Dr. David J. Sailor. <https://sustainability.asu.edu/urban-climate>

2014-2016 Graduate Assistant. Department of Geosciences, Mississippi State University.

Researched in individually experienced temperatures and in winter storm impacts with Dr. Christopher Fuhrmann.

TEACHING EXPERTISE

Expertise Areas: Physical Geography, Meteorology (Physical/Applied/Broadcast), Climatology (Physical/Applied), Statistics in Atmospheric Sciences, and Urban Microclimate Methods

Oklahoma State University, Stillwater, Oklahoma August 2022 - current

Assistant Professor, Department of Geography

- › Taught Introduction to Physical Geography, an undergraduate course with ~70 students per lecture, covering topics: fluvial geomorphology, glaciology, meteorology, and coastal geomorphology.
- › Developed course materials, quizzes, and exams.
- › Maintained course evaluations and learning metrics to meet accreditation requirements.
- › Wrote the syllabus to meet accreditation standards.
- › Supported and advised students as they navigated the course and adjusting to the university experience and expectations.

Arizona State University, Tempe, Arizona January 2019 - May 2019

Graduate Teaching Associate, Geographical Sciences and Urban Planning

- › Taught Introduction to Physical Geography Lab, an undergraduate course with 30-40 students per lab, covering topics: fluvial geomorphology, glaciology, meteorology, and coastal geomorphology.
- › Developed course materials, quizzes, and exams.
- › Wrote the syllabus to meet accreditation standards.
- › Coordinated and oversaw grading of course materials by one undergraduate preceptor.
- › Conducted review sessions and study guides for students.

Arizona State University, Tempe, Arizona August 2018 – December 2018

Graduate Teaching Associate, Geographical Sciences and Urban Planning

- › Taught Introduction to Meteorology Lab, an undergraduate course with 30-40 students per lab, covering topics: atmospheric moisture, weather map readings, and weather forecasting.
- › Developed course materials, quizzes, and exams.
- › Wrote the syllabus to meet accreditation standards.
- › Coordinated and oversaw grading of course materials by two undergraduate preceptors.
- › Conducted review sessions and study guides for students.

Mississippi State University, Starkville, Mississippi August 2014 – December 2014

Graduate Teaching Assistant, Geosciences

- › Graded for Statistical Climatology, an undergraduate course with 30-40 students, covering topics: fundamental statistics, distribution curves, basic computer programming, and climatological analysis.
- › Tutored students in programming and analysis.

Mississippi State University, Starkville, Mississippi August 2014 – December 2014

Graduate Teaching Assistant, Geosciences

- › Graded for Applied Climatology, an undergraduate/graduate course with 20-25 students, covering topics: climate-agriculture applications, urban climatology, forensic climatology, and biometeorology.
- › Led discussion groups and advised on term project ideas and execution.

STUDENTS MENTORED

2020-2021	Teresa Garcia	Engineering Tech, City of Phoenix
2020-2021	Peyton Miller	AP Research Stem Student, TOHS
2019-2019	M. Colin Marvin	Graduate Student, Stanford
2019-2019	Brian Field	NWS Meteorologist, Corpus Christi
2018-2018	Ali Cole	Graduate Student, Colorado State
2014-2016	Kenneth Roakes	NWS Meteorologist, Blacksburg

PROFESSIONAL DEVELOPMENT

Professional Organization Affiliation

Journal Reviewer 2022-present
Cities and the Environment

Early Career Researcher Session Organizer ICUC Virtual Poster Conference Planning Committee	2022-current
Journal Reviewer Building and Environment	2022-present
Journal Reviewer PLoS One	2022-present
Landsberg Award Committee Member American Meteorological Society Helmut E. Landsberg Award	2021-current
Committee Member American Meteorological Society Board for the Urban Environment.	2021-current
Journal Reviewer International Journal of Urban Sustainable Development	2021-present
Journal Reviewer Building Simulation	2020-present
Journal Reviewer International Journal of Biometeorology	2020-present
Committee Member ICUC-11 Early Career Researcher Engagement Committee.	2020-current
Student Member American Meteorological Society Board for the Urban Environment.	2020-current
Co-chair Session of the 15 th Symposium of the Board on the Urban Environment at the American Meteorological Society Annual Conference.	2020
Co-chair Joint Session of the 24 th Applied Climatology Conference and 10 th Symposium on Environment and Health at the American Meteorological Society Annual Conference.	2019
Journal Reviewer International Journal of Climatology	2019-present
Journal Reviewer International Journal of Geophysical Research Atmospheres.	2019-present
Member International Society of Biometeorology	2018-current
Member American Geophysical Union	2018-2019
Member American Association of Geographers	2018-2020

Committee Member 2017-current
International Association for Urban Climate Bibliography Committee

Journal Reviewer 2017-present
Urban Climate

Member 2016-current
International Association for Urban Climate

Member 2012-current
American Meteorological Society

University Service

Social Media Committee 2022-current
Department of Geography, Oklahoma State University

Committee Member 2020-2021
COVID-19 Care Committee,
School of Geographical Sciences and Urban Planning.

Assembly President 2019-2020
Graduate and Professional Student Association (GPSA),
Arizona State University.

Assembly Member 2018-2020
Graduate and Professional Student Association (GPSA),
Arizona State University.

Vice President 2017-2018
Graduate Student Committee,
School of Geographical Sciences and Urban Planning.

Colloquium Coordinator 2016-2017
Graduate Student Committee,
School of Geographical Sciences and Urban Planning.

Community Outreach

ASU Open Door Volunteer February 2020
Engaged with the community on topics of research connected with the Urban Climate
Research Center.

Guest Speaker October 2019
Benefits of Urban Design, Urban Climate, and Nature Contact. Tempe High School Eco
Club.

ASU Open Door Volunteer February 2018
Engaged with the community on topics of research connected with the Urban Climate
Research Center.

Guest Speaker

May 2017

Urban Heat Islands and Thermal Characteristics of Buildings and Humans. Tempe High School Sustainability.

ASU Open Door Volunteer

February 2017

Engaged with the community on topics of research connected with the Urban Climate Research Center.

Certifications and Trainings**Global Advocacy Certification Program**

2020-2021

Year-long certification program in cultural intelligence, implicit biases, and inclusive space creation in the classroom and the research lab.
Arizona State University.

PLuS Alliance International Interdisciplinary Researcher (PIIR)

2018-2019

Research program for growth and training in interdisciplinary skills and global collaboration at Arizona State University, King's College London and UNSW, Sydney.

University of Bucharest Urban Climate Workshop

2017

Week-long workshop training graduate students and post-doctoral researchers on the fundamentals of urban climate research.
University of Bucharest

MEDIA COVERAGE

2022

“How Hot and Humid Singapore Is Trying to Cool Itself Down”

<https://www.nytimes.com/2022/08/01/world/asia/singapore-cooling-heat-climate.html>

“Penyelidik SMU teroka cara lebih baik ukur haba bandar”

<https://www.beritaharian.sg/setempat/penyelidik-smu-teroka-cara-lebih-baik-ukur-haba-bandar>

“Is weather app accurate? SMU researchers eye better way to measure urban heat”

<https://www.straitstimes.com/singapore/environment/is-weather-app-accurate-smu-researchers-eye-better-way-to-measure-urban-heat>

2019

“ASU students represent Urban Climate Research Center at UN convention”
<https://www.statepress.com/article/2019/10/spbiztech-urban-climate-center-student-chosen-as-delegate>

“ASU meteorology-climatology students take their skills to the field during summer break” <https://asunow.asu.edu/20190927-asu-meteorology-climatology-students-take-their-skills-field-during-summer-break>

2018

“Meteorologists predict El Nino for Arizona this winter.” Fox 10 Phoenix.
<http://www.fox10phoenix.com/news/arizona-news/meteorologists-predict-el-nino-for-arizona-this-winter>

2017

“Researchers study Phoenix’s urban heat with hopes of cooler future”
<http://ktar.com/story/1655975/researchers-study-phoenixs-urban-heat-with-hopes-of-cooler-future>

RELATED PROFESSIONAL SKILLS

Research Skills

- > ArcGIS
- > QGIS
- > R
- > ENVI-met
- > Adobe Photoshop
- > Adobe Premiere Pro

Teaching Skills

- > Blackboard
- > Canvas

NONACADEMIC WORK

- | | |
|-----------|---|
| 2014-2016 | Broadcast Meteorologist, WVUA-TV, Birmingham, Alabama |
| 2014-2014 | Broadcast Meteorologist, WNKY-TV, Bowling Green, Kentucky |