

# Bangning Zhang

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## SUMMARY OF QUALIFICATIONS

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- Abundant experiences in teaching quantitative public health courses
- Enthusiasm in teaching and mentoring students
- Extensive training experience that led to effective health communication to diverse groups
- Selective education group member of Texas A&M Health VISION 360 initiatives
- Highly collaborative skills with supervisors, colleagues/associates, and government officials that led to efficient teamwork
- Strong backgrounds of epidemiology, environmental health, and biomedical science that led to the prevention of diseases
- Essential academic and independent research skills that led to utilization of various tools to solve and investigate wide fields of public health issues
- Public health services experiences that contributed to the community public health intervention
- Highly innovative skills that lead to improvement to various public health policy and intervention

## EDUCATION

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***Doctor of Public Health (Epidemiology and Environmental Health Science)*** **12/2022**

Texas A&M University School of Public Health

Department of Epidemiology and Biostatistics, College Station, TX

***Master of Public Health (Environmental & Global Health)*** **05/2018**

University of Florida College of Public Health and Health Profession

Department of Environmental and Global Health, Gainesville, FL

***Bachelor of Science (Biomedical, Molecular, and Cellular Science)*** **12/2014**

Southeast Missouri State University College of Science

Department of Biology, Cape Girardeau, MO

## PROFESSIONAL AND RESEARCH EXPERIENCE

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**Instructional Assistant Professor** **08/2022–Present**

Texas A&M University School of Public Health, 212 Adriance Lab Rd, College Station, TX 77843

**Visiting Instructional Assistant Professor** **08/2022–08/2023**

Texas A&M University School of Public Health, 212 Adriance Lab Rd, College Station, TX 77843

- Instructor for graduate and undergraduate level courses: Public Health Data Management and Assessment, M.P.H public health graduate capstone (spring 2023)
- Develop course teaching materials with other instructors
- Develop multiple teaching skills and techniques with other professors for courses

**Graduate Assistant Lecturer & Teaching** **08/2019–07/2022**

Texas A&M University School of Public Health, 212 Adriance Lab Rd, College Station, TX 77843

- Instructor on record and teaching assistant for both graduate and undergraduate level courses: Epidemiology in Public Health, Epidemiological Methods, Environmental and Global Health Epidemiology, Health Policy and Public Health Data Management and Assessment
- Develop course teaching materials with other instructors
- Develop multiple teaching skills and techniques with other professors for courses

**Graduate Research Assistant (Epidemiology)**

**09/2018–Present**

**Texas A&M University School of Public Health, 212 Adriance Lab Rd, College Station, TX 77843**

- Conduct supervised and independent epidemiological and environmental health research programs and projects including studies at state and national levels
- Conduct statistical data analysis and produce results for the research projects
- Conduct systematic and meta-analysis reviews to assist with PI's research projects
- Develop manuscripts and abstracts for publication and conference poster events

**Environmental Health Specialist and Epidemiologist**

**07/2017–08/2018**

**Florida Department of Health in Alachua County, 224 SE 24th St, Gainesville, FL 32641**

- Conducted epidemiological investigation and environmental health assessment on the increased arsenic contamination level in residential wells in North-Central Florida
- Performed field operations of water sample collection and questionnaires to examine arsenic levels in household wells and residential risk factors
- Conducted trend, spatial, and statistical analyses in a 10-year scale to examine and assess environmental risk factors for the increased contamination level of arsenic including precipitations and farmland activities
- Distributed well water arsenic filters to households with MCL
- Developed environmental health education campaign and materials to residents with contaminated wells to improve their public health awareness
- Implemented public health interventions and policy recommendations with Department's supervisory personnel to improve household drinking water safety and quality

**Environmental Health Specialist and Epidemiologist Fellow**

**05/2017-07/2017**

**Florida Department of Environmental Protection Southwest District, 13051 Telecom Pkwy N, Temple Terrace, FL 33637**

- Participated in the U.S EPA's National Pollutant Elimination System (NPDES) program
- Performed NPDES storm water, industrial, domestic wastewater disposal inspection at constructional and industrial sites to ensure the compliance of NPDES regulations
- Enforced regulatory actions to parties who violated NPDES regulations to protect community water source
- Worked with NPDES permits applicants to develop pollution prevention plans
- Inspected NPDES storm water runoff prevention plans and issuing NPDES permits to applicants that in compliance with applicable federal and state laws
- Conducted regular meetings with senior department officials from the state to create and implement new environmental protection policies to minimize contamination from pollutant discharge

**Undergraduate Research Assistant (Micro and Bacterial Biology)**

**05/2014–09/2014**

**Southeast Missouri State University Department of Biology, One University Plaza  
Cape Girardeau, MO 63701**

- Studied the unique feature of termite's digestive system within its gut

- Examined bacteria and microbes inside termite’s gut that digest complex sugars from wood
- Conducted time series analysis to analyze the biological mechanism of bacteria and microbes inside termite’s gut

## ORGANIZATIONS AND ACTIVITIES

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**Selective Education Group Member of Texas A&M Health VISION360 Initiatives** **05/2020–Present**  
**Texas A&M Health Science Center, 8441 Riverside Pkwy, Bryan, TX 77807**

- Adopt inclusive, relevant and affordable educational environment
- Implement Three-to-Five Year Goal and Ten-Year Vision for the VISION360 campaign
- Create personalized professional training, new degree, and dual degree programs across the state and nation to position graduates to lead teams in health care systems
- Design innovated health care delivery model
- Promote health professional schools of choice for top students committed to becoming leaders in competence and evidence-based practices in inter-professional setting
- Serve as committee member to advocate scholarship diversity to underserved student populations

**Research Volunteer** **Active**  
**Texas A&M Human Research Protection Program, School of Public Health, 212 Adriance Lab Rd, College Station, TX 77843 (On Call for Duty)**

- Primary data collection on environmental samples of water, dust, and soil in neighborhoods (Fifth Ward, Kashmere Gardens, and Denver Harbor) with confirmed cancer clusters in Houston, TX
- Conduct survey to assess individuals experience and health conditions in the communities with cancer clusters
- Conduct analysis on collected samples and the presence of contaminants within homes

**Medical Reserve Corps Member** **Active**  
**Harris County Public Health, Houston, TX, 2223 West Loop South, Houston, TX 77027 (On Call for Duty)**

- Assist at COVID-19 stationary specimen collection sites and mobile testing units
- Execute outreach and lead training in response to COVID-19 in Texas
- Work as a language translator to assist racial minority groups with language barrier at COVID vaccine sites

**Epiassist member** **Active**  
**Texas A&M University School of Public Health, 212 Adriance Lab Rd, College Station, TX 77843**

- Assist state, regional, and local health departments and Texas A&M University in Texas with outbreak investigations, disasters and emergencies, community health assessments
- Volunteer and assist COVID testing at Texas A&M University

**Department Head Search Committee Student Member** **09/2020-03/2021**  
**Texas A&M University School of Public Health, 212 Adriance Lab Rd, College Station, TX 77843**

- Doctoral student search committee member for the department head of epidemiology and biostatistics
- Participate committee meeting with search committee members and leadership of SPH (dean)
- Interact and engage with candidates for the leadership position
- Provide recommendations and needs of student body at School of Public Health for new leadership

## **RESEARCH AND PROFESSIONAL PROGRAMS AND PROJECTS**

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### **Analysis of Childhood Cancer’s Spatial and Temporal Distributions and Assessing Potential Impacts of Gas and Oil Developments on Childhood Cancer in Texas**

Role: Dissertation topic 02/2020–Present

### **Understanding Environmental and Health Data in Fifth Ward, Kashmere Gardens, and Denver Harbor**

Supporting Agency: National Academy of Sciences, Engineering, and Medicine

Role: Research Volunteer 07/2021–Present

### **Associations between Ambient Air Pollution and Adverse Birth Outcomes in Florida**

Supporting Agency: Florida Department of Health, National Institute of Health

Role: Graduate Research assistant/Co-Investigator 08/2018–01/2020

### **Potential Increased Risk of Trisomy 18 Observed After a Fertilizer Warehouse Fire in Brazos County, TX**

Supporting Agency: School of Public Health, Texas A&M Health Science Center

Role: Graduate Research assistant/Co-Investigator 08/2018-12/2019

### **A Systematic Assessment of Carcinogenicity of Chemicals in Hydraulic-Fracturing Fluids and Flowback Water**

Supporting Agency: School of Public Health, Texas A&M Health Science Center

Role: Graduate Research assistant/Co-Investigator 08/2018-12/2019

### **National Pollutant Elimination System (NPDES) Program**

Supporting Agency: Florida Department of Environmental Protection

Role: Environmental Health Specialist fellow 05/2017–08/2017

## **PROFESSIONAL AND INTERDISCIPLINARY SKILLS**

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- Proficient data management skills of STATA, SAS, and spatial analysis tool SatScan
- Microbiology lab skills of cultivation, PCR test, bacterial staining and essential laboratory equipment use
- Persuasive communication skill of public health crisis, risks with publics
- Professional sample collection skills of field operation such as water, dust, and soil sampling
- Public health intervention implementation
- Community public health engagement teaching

## **CERTIFICATES AND TRAININGS**

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- Certified Environmental Regulatory School of Florida Department of Environmental Protection
- Certified HIPPA/Government Ethics training of Florida Department of Health
- Full Laboratory Safety Training with Southeast Missouri State University
- Certified training from Emergency Management Institute of Federal Emergency Agency (FEMA)

- Certified NIH Office of Extramural Research training
- Certified CITI Program for Group 1 and Group 2 by Texas A&M University and Florida Department of Health

## PROFESSIONAL AFFILIATIONS

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<b>Harris County Medical Reserve Corps, TX</b>	<b>02/2021–Present</b>
<b>Texas A&amp;M Health VISION360 Initiative</b>	<b>05/2020–Present</b>
<b>Society of Epidemiological Research</b>	<b>09/2019–Present</b>
<b>American Public Health Association</b>	<b>10/2017–Present</b>

## EDITORIAL BOARD

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<b>Peer Reviewer in PLOS ONE</b>	<b>11/2022-Present</b>
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## SELECTED PUBLICATIONS

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Xu X, Zhang X, Carrillo G, Zhong Y, Kan H, **Zhang B**. A systematic assessment of carcinogenicity of chemicals in hydraulic-fracturing fluids and flowback water. *Environ Pollut*. 2019 Aug;251:128-136.

Xu, X., Zhang, X., Han, J., Adamu, Y., & **Zhang, B.** (2020). Potential Increased Risk of Trisomy 18 Observed After a Fertilizer Warehouse Fire in Brazos County and TX. *International journal of environmental research and public health*, 17(7), 2561.

Han, J., **Zhang, B.**, Zhang, X., Huang, K., Fang, V., & Xu, X. (2023). Associations between occurrence of birth defects and hydraulic fracturing activities in Barnett shale region, Texas. *Heliyon*, 9(4).