

ZHUO “AUSTIN” TANG

Education

Wuhan University — B.A. in Geography Science, 2015-2019

School of Resources and Environmental Sciences

GPA: 3.59/4.0; Major GPA: 3.76/4.0

University of California, Santa Barbara — Exchange Program, 2018

Courses: Behavioral Geography (A); Scientific Research Methods in Geography (A); GIS design and Applications (A)

University of Iowa — M.S. in Geography, 2019-2021

Department of Geographical and Sustainability Sciences

GPA: 4.0/4.0

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Major Research Experience

Spatiotemporal and spatial regression analysis on pediatric blood lead poisoning in Chicago, 1999-2013 — 2019-Ongoing

This project examines the relationships between the changing sociodemographic and urban environmental dynamics with pediatric blood lead poisoning. Individually completed data gathering, processing, analysis and initial manuscript under advising. Collaboratively preparing manuscript for publication.

Evaluating spatiotemporal patterns of molecular variation H5N1 influenza in Indonesia in relation to population-animal-environment contexts — 2020 - Ongoing

This project utilizes phylogenetic methods to detect spatial barriers of the circulation of H5N1 influenza and examines its underlying relationship with socioeconomic factors. Completed proposal under advising, currently in the process of data gathering and processing.

Geographic Driving Force Analysis of the Hemorrhagic Fever with Renal Syndrome, based on Geodetector — 2017-2018

Studied HFRS cases in Jianli County and collected related socioeconomic data. Conducted statistical analysis to find geographic driving factors for HFRS.

Habitat Quality Prediction in Hubei, based on Future Land Use Scenarios, Integrating FLUS & InVEST Model — 2003–2005

This project integrates FLUS model which predicts future land use demand based on different climate change scenarios and InVEST model that assesses the habitat quality change accordingly. Took a major part in data gathering, processing, analysis and initial manuscript.

Teaching Experience

Lab Teaching Assistant at Geographic Information System Instructional Lab, University of Iowa — 2019

Answered and trouble shot mainly ArcGIS related questions from students involved in various GIS courses.

Teaching Assistant for GEOG 1070 Contemporary Issue, University of Iowa. — 2020 - Ongoing

Led discussions among undergraduate students through various environment related topics.

Skills

Experienced in spatial data gathering, handling and visualization. Familiar with a wide range of spatial analysis methods including interpolation, spatial regression, network analysis, etc. Introduced to viral genetic data gathering, processing and phylogenetic analysis utilizing high performance computing.

Geography and remote sensing related softwares

Skilled in ArcMap, GeoDa, ENVI and ERDAS IMAGINE

Other softwares

Familiar with R, phylogenetic analysis software BEAST, and genetic data processing platform UGENE.

Language

Mandarin Chinese (Native), English, Japanese (basic)

Selected publications

Huang, J., **Tang, Z.**, Liu, D., & He, J. (2020). Ecological response to urban development in a changing socio-economic and climate context: Policy implications for balancing regional development and habitat conservation. *Land Use Policy*, 97, 104772.

doi:<https://doi.org/10.1016/j.landusepol.2020.104772>

Liu, T., Yao, M., Huang, J., **Tang, Z.**, Hao, H. (2018). Examining the epidemic characteristics and contributing factors of the hemorrhagic fever with renal syndrome in Jingzhou city. (In Chinese) *Modern Preventive Medicine*, 2018,45(12):2124-2127.

Honors and awards

Hugh Vollrath Ross Scholarship — 2020

The Second Prize Scholarship of Academic Excellence, awarded by WHU — 2017

The Third Prize Scholarship of Academic Excellence, awarded by WHU — 2016

Invited Talks

Epidemiology of Infectious Diseases, *GIS for infectious disease research*, University of Iowa.

Presenters: Carrel M., Tang Z. Authors: Carrel, M.

Epidemiology of Infectious Diseases, *Wuhan Lockdown - A View from the Inside*, University of Iowa.

Presenters/Authors: Tang Z.