

Zhengyuan Wang

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EDUCATION

Harvard University, T.H. Chan School of Public Health

Expected May 2025

S.M., Environmental Health

- GPA: 3.95/4.0
- Advisors: Dr. Christopher Golden, Dr. Petros Koutrakis

University of Florida, College of Agriculture and Life Sciences

May 2023

B.S., *summa cum laude*, Marine Sciences

- GPA: 3.85/4.0,
- Honors Thesis: Effects of Aerial Exposure at Different Temperatures and Humidity on Survival and Biochemical Enzyme Activities of Northern Quahogs *Mercenaria mercenaria*
- Advisor: Dr. Huiping Yang

RESEARCH EXPERIENCE

Harvard T.H. Chan School of Public Health

2024 - present

Graduate Researcher

Advisor: Dr. Christopher Golden

- Investigating methylmercury (MeHg) risks in Chinese seafood consumption and the trade-offs with essential micronutrient intake as part of an ongoing thesis research project.
- Estimating per capita MeHg intake in the Chinese population by integrating domestic fishery production data, national dietary survey data, and MeHg concentrations databases.
- Developing statistical models, including Bayesian hierarchical models, to estimate nutrient profiles based on nutrient composition data for various aquatic food.

Harvard T.H. Chan School of Public Health

2024 - present

Research Assistant

Advisors: Dr. Barrak Alahmad, Antonis Michanikou

- Analyzed the association between personal temperature exposure measured through personal wearable sensors and weather station data using longitudinal mixed-effect models in a cystic fibrosis cohort study.
- Evaluated various heat stress indices (e.g., Wet-Bulb Globe Temperature, Thermal Discomfort Index, and Heat Index) derived from weather station to improve the accuracy of personal heat exposure predictions.
- Identified non-linear trends and plateau effects in personal heat exposure, highlighting potential exposure misclassification by weather station data during warm seasons.
- Performed data cleaning, model diagnostics, and data visualization, and prepared a manuscript to ensure the reliability and interpretability of findings for presentation in Cyprus.

Harvard T.H. Chan School of Public Health

2024 - present

Research Assistant

Advisor: Dr. Petros Koutrakis

- Investigated the association between radon and PM_{2.5} exposure and breast cancer mortality risk across U.S. counties (2001–2018) using advanced statistical models, including a Bayesian spatiotemporal framework.

- Processed and cleaned datasets, including radon, PM_{2.5}, and breast cancer mortality data, sourced from national databases
- Created data visualizations to identify temporal and spatial trends of PM_{2.5} and radon levels

University of Florida, School of Forest, Fisheries, and Geomatics Sciences

2022 - 2023

Research Assistant

Advisor: Dr. Huiping Yang

- Formulated and conducted an independent honors thesis investigating the effects of air exposure and anoxia on the physiological and enzymatic responses of hard clams (*Mercuraria mercenaria*).
- Analyzed hemocyte immune parameters using flow cytometry, including cell viability, reactive oxygen species (ROS) production, lysosome activity, and phagocytosis.
- Assessed enzyme activities related to oxidative stress and metabolism, such as superoxide dismutase (SOD), glutathione S-transferase (GST), and alkaline phosphatase (ALP), using a microplate reader.
- Extracted hemolymph to measure osmolality, dissected clams for tissue collection, maintained recirculating aquaculture systems, and cultured algae to produce feed for experimental clams.

FELLOWSHIPS, GRANTS, AND AWARDS

Cyprus Harvard Endowment Fellowship

2024

Harvard T.H. Chan School of Public Health

Rose Service Learning Fellowship

2024

Harvard T.H. Chan School of Public Health

Dean's List

2020 - 2023

University of Florida, College of Agricultural and Life Sciences

PRESENTATIONS

“Coastal Vulnerability in Qingdao’s Offshore Aquaculture: Subsistence Practices and a Sustainable Food System”, Community Engaged Learning Fellowship, Harvard T.H. Chan School of Public Health, Boston, MA, 2024

SKILLS

- Languages: Mandarin Chinese- Native proficiency
- Software: RStudio, L^AT_EX, SAS, JMP, STATA, Zotero, Adobe Photoshop/Lightroom
- Laboratory Skills: DNA Extraction, Flow Cytometry, Gel Electrophoresis, PCR, Microplate Reader