# JIEYA YANG

<sup>(608)</sup> 342-1322 ⊠yangjie@uwplatt.edu • Platteville, WI 53818 <sup>®</sup>LinkedIn: <u>https://www.linkedin.com/in/jieyayang98</u> % Google Scholar: https://scholar.google.com/citations?user=gMQ0PBoAAAAJ&hl=en Education FAMU-FSU College of Engineering, Florida State University, Tallahassee, Florida Ph.D. in Civil Engineering 2023 M. Eng in Civil Engineering 2022 University of Shanghai for Science and Technology, Shanghai, China B. Eng in Environmental Engineering 2020 Experience University of Wisconsin - Platteville, Platteville, Wisconsin Lecturer, Civil and Environmental Engineering 2024-present FAMU-FSU College of Engineering, Florida State University, Tallahassee, Florida Postdoctoral Researcher, Civil and Environmental Engineering 2023-2024 Graduate Research and Teaching Assistant, Civil and Environmental Engineering 2020-2023 Florida State University, Tallahassee, Florida Global Ambassador, Center for Global Engagement 2022-2023 University of Shanghai for Science and Technology, Shanghai, China Undergraduate Laboratory Volunteer, Environmental Engineering 2018-2020 Skill Computer: ArcGIS Pro and related ESRI tools; Python, Surface-water Modeling System (SMS): ADCIRC / STWAVE, HEC-RAS, MATLAB, CUBE Voyager, C Programming, AutoCAD, Microsoft Office Suite; Modeling: Network analysis; Spatial analysis, Evacuation demand modeling; Traffic congestion simulation; Nearshore wave modeling; Inundation mapping and forecasting;

Laboratory: Water quality determination for nitrogen; Photocatalyst material test;

Others: Cultural communication presenter; Mandarin

### **Publication and Project**

#### **Published Article**

- Yang, J., Alisan, O., Vijayan, L., Huang, W., Ozguven, E.E. (2025). Critical Shelter Analysis Considering Social Vulnerability and Accessibility: A Case Study of Hurricane Michael Track Uncertainty. *Appl. Spatial Analysis* 18, 30. <u>https://doi.org/10.1007/s12061-025-09635-9</u>
- (2). **Yang, J.**, Kocatepe, A., Alisan, O., Ozguven, E.E. (2025). Geographical Information Systems-Based Assessment of Evacuation Accessibility to Special Needs Shelters Comparing Storm Surge Impacts of Hurricane Irma (2017) and Ian (2022). *Geographies* 2025, 5, 2. <u>https://doi.org/10.3390/geographies5010002</u>
- (3). Yang, J., Alisan, O., Ma, M., Ozguven, E. E., Huang, W., & Vijayan, L. (2023). Spatial Accessibility Analysis of Emergency Shelters with a Consideration of Sea Level Rise in Northwest Florida. *Sustainability*, 15(13), Article 13. <u>https://doi.org/10.3390/su151310263</u>
- (4). Yang, J., Vijayan, L., Ghorbanzadeh, M., Alisan, O., Ozguven, E. E., Huang, W., & Burns, S. (2023). Integrating storm surge modeling and accessibility analysis for planning of special-needs hurricane shelters in Panama City, Florida. *Transportation Planning and Technology*. <u>https://cogentoa.tandfonline.com/doi/abs/10.1080/03081060.2022.2162053</u>
- (5). **Yang, J.**, Vijayan, L., Ghorbanzadeh, M., Alisan, O., Huang, W., Ozguven, E. E., & Burns, S. (2022). Effects of the Uncertainty of Hurricane Tracks on Coastal Hazards and Evacuations. *International Journal of Structural and Civil Engineering Research*, *11*(4), 99–107. <u>https://doi.org/10.18178/ijscer.11.4.99-107</u>
- (6). **Yang, J.**, Huang, W., & Ozguven, E. E. (2020). Effects of Population Density and Traffic Flow on Covid-19 Disasters in Florida. *Advancements in Civil Engineering & Technology*, 4(2). <u>https://doi.org/10.31031/acet.2020.04.000585</u>

- (7). Vijayan, L., Huang, W., Ma, M., Ozguven, E., Yang, J., & Alisan, O. (2023). Rapid Simulation of Storm Surge Inundation for Hurricane Evacuation in Florida by Multi-Scale Nested Modeling Approach. International Journal of Disaster Risk Reduction, 99, 104134. <u>https://doi.org/10.1016/j.ijdrr.2023.104134</u>
- (8). Vijayan, L., Huang, W., Ma, M., Ozguven, E., Ghorbanzadeh, M., **Yang, J.**, & Yang, Z. (2023). Improving the accuracy of hurricane wave modeling in Gulf of Mexico with dynamically-coupled SWAN and ADCIRC. Ocean Engineering, 274, 114044. <u>https://doi.org/10.1016/j.oceaneng.2023.114044</u>
- (9). Ghorbanzadeh, M., Vijayan, L., Yang, J., Ozguven, E. E., Huang, W., & Ma, M. (2021). Integrating Evacuation and Storm Surge Modeling Considering Potential Hurricane Tracks: The Case of Hurricane Irma in Southeast Florida. *ISPRS International Journal of Geo-Information*, 10(10), 661. <u>https://doi.org/10.3390/ijgi10100661</u>
- (10). Zhang, T., Chang, F., Qi, Y., Zhang, X., Yang, J., Liu, X., & Li, S. (2020). A Facile One-Pot and Alkali-Free Synthetic Procedure for Binary SnO<sub>2</sub>/G-C<sub>3</sub>N<sub>4</sub> Composites with Enhanced Photocatalytic Behavior. *Materials Science in Semiconductor Processing*, 115, 105112. <u>https://doi.org/10.1016/j.mssp.2020.105112</u>

### **Conference**

- (1). **Yang, J.**, Alisan, O., Vijayan, L., Huang, W., Ozguven, E.E. (2024). Critical Shelter Analysis in Northwest Florida Using Social Vulnerability and Accessibility Based on Uncertain Hurricane Tracks. Transportation Research Board 103rd Annual Meeting, Washington DC.
- (2). **Yang, J.**, Alisan, O., Ma, M., Vijayan, L., Ozguven, E. E., Huang, W. (2024). Spatial Accessibility of Hurricane Shelters: A Case Study of Hurricane Michael with Sea Level Rise Consideration. Transportation Research Board 103rd Annual Meeting, Washington DC.
- (3). **Yang, J.**, Ozguven, E. E. (2024). Spatial Accessibility to Shelters Report: A Case Study of Hurricane Irma. Transportation Research Board 103rd Annual Meeting, Washington DC.
- (4). Yang, J., Vijayan, L., Alisan, O., Ghorbanzadeh, M., Huang, W., Ozguven, E. E., & Burns, S. (2023). Planning for Special Needs Shelters: A Hurricane Track Uncertainty-based Approach Integrating Coastal Inundation and Accessibility. Transportation Research Board 102nd Annual Meeting, Washington, DC.

### **Under Review**

Vanli, O.A., Tsekeni, D., Alisan, O., **Yang, J.**, Ozguven, E.E., Spatiotemporal modeling and planning of congregate and non-congregate shelters using GPS vehicle movement data, Progress in Applied Sciences.

### **Project**

 Ozguven, Eren Erman (PI). (Jun 2023–May 2024). FAMU Tier 1 University Transportation Center (UTC) - Rural Equitable and Accessible Transportation (REAT) Center. Funded by Florida A & M University. (C-5183). Total award \$247,139.

Participated as a Postdoctoral Scholar. Conducted a comparative assessment of storm surge effects on evacuation accessibility in Florida's southwest coast with spatial analysis techniques and infrastructure resilience consideration. Software: ArcGIS Pro, Python

- (2). Vanli, A., Ozguven, E., Mathias, J., & Piekalkiewicz, E. (Sep 2021–Aug 2024). Excellence in Research: Bending the Curve for Vulnerable Populations: A Data-Analytical and Socio-Technical Decision-Making Framework for Sheltering in Hurricane-Pandemics. Funded by National Science Foundation. (2101091). Total award \$542,167. Participated as a Postdoctoral Scholar. Analyzed trips based on locations and travel time to critical facilities during the evacuation of Hurricaen Sally in 2020. Software: ArcGIS Pro.
- (3). Huang, Wenrui (PI), & Ozguven, Eren Erman (Co-PI). (Sep 2018–Aug 2021). ERC: Integrated Hazard and Traffic Modeling for Massive Evacuation in Florida under Uncertainty of Hurricane Track. Funded by National Science Foundation. (1832068). Total award \$499,682.

Participated as a Graduate Assistant. Integrated inundation simulations with network analysis to evaluate the accessibility level of emergency facilities such as special-needs shelters focusing on vulnerable populations and areas. Optimized locations and the number of facilities to enhance accessibility level. Software: ArcGIS Pro, ArcMap, SMS (ADCIRC), CUBE Voyager, Python

(4). Dr. Juan Lyu, University of Shanghai for Science and Technology College of Environment & Architecture, 2019-2020. Anaerobic Digestion of TMAH in Wastewater

Participated as an Undergraduate Research Volunteer. Provided environment for anaerobic reaction and microorganisms growth in cycles. Detected the effluent's total nitrogen (TN), TOCs, and other element concentrations. Materials: Activated sludge, 25% TMAH solution.

(5). Fei Chang (PI), University of Shanghai for Science and Technology College of Environment & Architecture, 2018-

## 2019. Synthesis of Photocatalytic Materials Used in Wastewater Disposal

Participated as an Undergraduate Research Volunteer. Utilized S2- to improve disposal efficiency, significantly increased the degradation rate to 98%. Materials: Fe3O4, BiBrO, etc.

Honor, Award, Scholarship	
2023-2024 CEE Graduate Research Excellence Award, FAMU-FSU College of Engineering	2023
CEE Future Faculty Award, FAMU-FSU College of Engineering	2023
The 2 <sup>nd</sup> Class Scholarship of USST	2018