Mark K. Wang (王凯章)

mark-wang.com | mark.wang@utexas.edu | linkedin.com/in/markkwang | @__markwang Center for Water and the Environment, Room 44 10100 Burnet Road Bldg. 119, Austin, TX 78758

EDUCATION

The University of Texas at Austin

Austin, TX

Doctor of Philosophy | Civil Engineering

Expected May 2025

Master of Science | Environmental and Water Resources Engineering

May 2022

• Thesis: Near Real-Time Coastal Flood Mapping

Columbia University

New York, NY

Bachelor of Science | Civil Engineering | Water Resources Concentration

May 2016

Franklin & Marshall College

Lancaster, PA

Bachelor of Arts | Cognitive Science | Music Minor

May 2016

RESEARCH EXPERIENCE

NOAA | National Weather Service | CUAHSI

Tuscaloosa, AL

June 2022 - July 2022

Summer Institute Fellow

Research Grantee

- \bullet Developed a GIS-based approach to couple riverine-coastal flood in undation
- Supported efforts to improve the National Water Model's NextGen framework

Fulbright Program, U.S. Department of State

Zhuhai & Shenzhen, China

June 2019 - Feb 2020

- Studied low-impact development and green infrastructure in the Pearl River Delta
- Investigated urban stormwater management techniques and their underlying policy in China

Professional Experience

Water Utility, City of Austin

Austin, TX

Systems Planning Engineering Intern

Mar 2020 - Sep 2020

- Wrote python scripts for automatic storm event and sewer peak flow analysis
- Maintained GIS databases for long-range water infrastructure planning

Mease Engineering, P.C.

Quakertown, PA

 $Civil\ Engineer$

Oct 2017 - June 2019

- Performed hydrologic site analyses under pre- and post-development conditions
- Designed stormwater infiltration and attenuation systems for water quality and flow rate control

NYC Department of Environmental Protection

New York, NY

Assistant Civil Engineer

June 2016 - Oct 2017

- Managed green stormwater infrastructure projects in public parks and streets
- Developed and reviewed construction drawings and contract specifications

Publications & Presentations

- 1. Wang, Mark, & Passalacqua, P. (2022). Near real-time coastal flood mapping. *Planet Texas 2050 Research Symposium*.
- 2. Shetty, N., Wang, Mark, Elliott, R., & Culligan, P. (2022). Examining how a smart rainwater harvesting system connected to a green roof can improve urban stormwater management. Water, 14(14)
- 3. Shetty, N. H., Elliott, R. M., Wang, Mark, Palmer, M. I., & Culligan, P. J. (2022). Comparing the hydrological performance of an irrigated native vegetation green roof with a conventional sedum spp. green roof in new york city. *PLOS One*, 17(4), e0266593

- 4. Shetty, N. H., Hu, R., Mailloux, B. J., Hsueh, D. Y., McGillis, W. R., **Wang, Mark**, Chandran, K., & Culligan, P. J. (2019). Studying the effect of bioswales on nutrient pollution in urban combined sewer systems. *Science of The Total Environment*, 665, 944–958
- 5. Shetty, N. H., & Wang, Mark. (2018). Performance of a "next generation" green roof with irrigation and smart detention. 2018 EWRI International Low Impact Development Conference, Abstract 437268.

Grants & Awards

National Science Foundation	
• Graduate Research Fellowship \$102,000	2020 - Present
The University of Texas at Austin	
• John E. Kasch Endowed Graduate Fellowship in Engineering	2020-Present
• Dean's Prestigious Fellowship Supplement	2020 – $Present$
Fulbright Program, U.S. Department of State	
• Study/Research Award \$23,300	2019 - 2020
• Critical Language Enhancement Award \$16,740	2019
Franklin & Marshall College	
• Magna cum laude Phi Beta Kappa	2016
• G. Kenneth Kohlmaier Family Scholarship	2011 - 2014
• C. Richard Plank Scholarship	2011 - 2014

Computational

SKILLS & MISCELLANEOUS

• Python | MATLAB | Git | Slurm | Unix shell | ArcGIS Pro | QGIS | LATEX | HEC-RAS | AutoCAD

Languages

- English (native speaker)
- Mandarin Chinese (professional working proficiency)

Licenses

• Engineer-in-Training (Pennsylvania License No. ET023499)

Completed Courses Courses

- Machine Learning with Python [link to credential]
- Computer Vision and Image Processing Essentials [link to credential]
- Deep Learning Essentials with Keras [link to credential]