Mark K. Wang（王凯章）

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Center for Water and the Environment, Room 44
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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
Summer Institute Fellow — *June 2022 – July 2022*
- Developed a GIS-based approach to couple riverine-coastal flood inundation
- Supported efforts to improve the National Water Model's NextGen framework

Fulbright Program, U.S. Department of State — Zhuhai & Shenzhen, China
Research Grantee — *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*

Skills & Miscellaneous

Computational

- 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 Coursera 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]