



## Zhiyu Zhang

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Male, Born in Oct. 1998, Xi'an, Shaanxi, China

Personal website: <https://zhiyu014.github.io/>

Research Interests: Smart Urban Drainage Networks

### Education

- |                     |                              |                           |                 |
|---------------------|------------------------------|---------------------------|-----------------|
| • Joint PhD         | City University of Hong Kong | Environment               | 09/2024-07/2026 |
| • MD-PhD            | Tongji University            | Environmental Engineering | 09/2020-07/2026 |
| • Bachelor's degree | Tongji University            | Environmental Engineering | 09/2016-06/2020 |

### Awards

- Postgraduate: Asaint (2023-2024) & Outstanding Student (2022-2023) Scholarship
- Undergraduate: Social Activity (2018-2019) & Outstanding Student (2<sup>nd</sup>, 2016-2017)

### Research (10+ papers published, 5 as primary/corresponding author)

1. **Zhang, Z.**, Tian, W. and Liao, Z. 2023. Towards coordinated and robust real-time control: a decentralized approach for combined sewer overflow and urban flooding reduction based on multi-agent reinforcement learning. **Water Research** (Top Tier)
2. **Zhang, Z.**, Tian, W., Lu, C. and Liao, Z., and Yuan, Z. 2024. Graph neural network-based surrogate modelling for real-time hydraulic prediction of urban drainage networks. **Water Research** (Top Tier)

### Peer Review & Conferences

1. Peer Review: 2 for Water Research and 2 for Journal of Environmental Management
2. Best Oral Pre: 2023 International Symposium on Sustainable Urban Drainage.
3. Poster: 2022, 13th IWA Conference on Instrumentation, Control and Automation.

### Projects & Internship

1. Hong Kong Drainage Service Department Project in Sewer Inflow & Infiltration Analyses, Research Assistant.
2. NSFC General Project "Research on Real-time Control of Overflow Pollution in Combined Sewer System on Rainy Day Based on Reinforcement Learning", PhD.
3. Subtask of Key Research Project "Research on integrated display technology of water environment in Taihu Basin based on 3D visualization", Secretary.
4. Shanghai Water Planning and Design Institute "Research on Rainwater Drainage Planning Method of Self-drainage Area Based on GIS and SWMM", Software.
5. Ewaters (Shanghai) Assistant Water Resources Engineer 2020/06-2020/09  
Data processing and report drafting in stormwater and water environment projects
6. Student Innovation Program "Pipeline Leakage Location Based on Transient Flow Theory" Leader for major research work, Project Leader.

### Skills

Language: IELTS (7.0); TOEFL (93); CET-6 (554); CET-4 (641)

Computer: Python; Tensorflow; Pytorch; ArcGIS/QGIS; SWMM; Office