ZHI LI

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120 David L Boren Blvd, Norman, OK 73072

EDUCATION

University of Oklahoma (OU)   *Aug. 2019 — Ongoing*

Ph.D. candidate in Civil & Environmental Science
Hydrometeorology and Remote Sensing Laboratory
Specification in remote sensing precipitation retrieval and hydrologic evaluations.

National University of Singapore (NUS)   *Aug. 2017 — Jan. 2019*

M.Sc in Civil & Environmental Engineering
Major in Hydraulic Engineering & Water Resources Management
Overall GPA: 4.68/5.0

Technical University of Delft (TUD)   *Feb. 2018 — Jul. 2018*

Exchange in Civil Engineering & Geosciences
Major in Water Resources Management
Overall GPA: 8.43/10.0

Hohai University   *Sep. 2013 — Jul. 2017*

B.Eng in Water Conservance & Hydropower Engineering
Overall GPA: 4.48/5.0
Average Score: 86.1

WORKING EXPERIENCE

Teaching Assistant, *CEES5020-992 Fundamental Hydrology*	*May. 2020 — Aug. 2020*
Teaching Assistant, *CEES5020-997 Quantitative Hydrometeorology*	*Jan. 2020 — May 2020*
Teaching Assistant, *CEES2113 Statics*	*Aug. 2019 — Jan. 2020*
Data Scientist, *Hydroinformatics Institute*	*Jan. 2019 — July. 2019*

PROJECTS

• Winter events identification and comparison between ground radar and spaceborne radar	*Aug. 2020 — Ongoing*
• twenty-year IMERG data evaluation: similarities, differences	*Aug. 2019 — Ongoing*
• Cross-examination of Uncertainties in Extreme Precipitation Events using Multiplicative Triple Collocation	*Aug. 2019 — Ongoing*
• Radar Rainfall Monitoring and Nowcasting System For Urban Flood Management in Singapore, Data Scientist, *Hydroinformatics Institute*	*Jan. 2019 — Ongoing*
• Radar Rainfall Monitoring and Nowcasting System For Urban Flood Management in Singapore, Data Scientist, *Hydroinformatics Institute*	*Jan. 2019 — Ongoing*
• CCTV Rainfall Camera, Data Scientist, *Hydroinformatics Institute*	*Feb. 2019 — Ongoing*
• Outdoor Thermal Comfort in Urban Spaces in Singapore, Research Asistant, *National University of Singapore*	*Aug. 2018 — Nov. 2018*
• Genetic Programming in Hydrology, Master Thesis, *National University of Singapore*	*Aug. 2018 — Nov. 2018*
• Arch Dam Design, Bachelor Thesis, *Hohai University*	*Feb. 2017 — Jul. 2017*

PUBLICATIONS

- Gao, S., Chen, M., **Li, Z.**, Cook, S., Allen, D., Neeson, T., ... & Hong, Y. (2021). Mapping Dynamic Non-Perennial Stream Networks Using High-Resolution Distributed Hydrologic Simulation: A Case Study in the Upper Blue River Basin. Journal of Hydrology, 126522.

- Chen, M. **Li, Z.,** Gao, S., Luo, X., Gourley, JJ, Kolar, R., Wing, O., Shen, X., Hong, Y. (2021), A comprehensive flood inundation mapping for Hurricane Harvey using an integrated hydrologic and hydraulic model, J. Hydrometeorology, doi: 10.1175/JHM-D-20-0218.1

- **Li, Z.**, Chen, M., Gao, S., Gourley, J.J., Yang, T., Shen, X., Kolar, R., Hong, Y. (2021), A multi-source 120-year US flood database with a unified common format and public access, Earth System Science Data Discussions, doi: 10.5194/essd-2021-36.

- **Li, Z.**, Chen, M., Gao, S., Luo, X., Gourley, J.J., Kirstetter, P., Yang, T., Kolar, R., McGovern, A., Wen, Y., Hong, Y. (2021). CREST-iMAP V1.0: A fully coupled hydrologic-hydraulic modeling framework dedicated to flood inundation mapping and prediction, Environmental Modeling and Software, 141, 105051, doi: 10.1016/j.envsoft.2021.105051.

- **Li, Z.**, Tang, G., Hong, Z., Chen, M., Gao, S., Kirstetter, P., Gourley, J.J., Wen, Y., Yami, T., Nabih, S., Hong, Y. (2021). Two-decades of GPM IMERG Early and Final Run products intercomparison: Similarity and Differences in Climatology, Rates, and Extremes, Journal of Hydrology, doi: 10.1016/j.jhydrol.2021.125975.

- **Li, Z.**, Wen, Y., Schreier, M., Behrangi, A., Hong, Y., Lambrigtsen, B. (2020). Advancing satellite precipitation retrievals with data driven approaches: is black box model explainanle? Earth and Space Science, 7, e2020RA001423. https://doi.org/10.1029/2020EA001423.

- **Li, Z.**; Chen, M.; Gao, S.; Hong, Z.; Tang, G.; Wen, Y.; Gourley, J.J.; Hong, Y. Cross-Examination of Similarity, Difference and Deficiency of Gauge, Radar and Satellite Precipitation Measuring Uncertainties for Extreme Events Using Conventional Metrics and Multiplicative Triple Collocation. Remote Sens. 2020, 12, 1258.

- Sui, X., **Li, Z.**, Ma, Z., Xu, J., Zhu, S., Liu, H., Ground Validation and Error Sources Identification for GPM IMERG Product over the Southeast Coastal Regions of China. Remote Sensing. 2020,12,4154.

- Bibliometric Analysis of Research on Fish Metal from 1997 to 2016, Co-author, Natural Hazards.

- Investigation and Thoughts on Accurate Solutions to Drinking Water Safety Issues of Poor Rural Areas of Qianjiang District, First Author, Energy Economy (ISSN 1672-0351)

- An Analysis of the Vibration Performance of Underground Powerhouse of a Certain Pumped Storage Power Station, First Author, Energy Economy (ISSN 1672-0351)

SOFTWARES

- The Coupled Routing and Excess STorage model - inundation MApping and Prediction (CREST-iMAP)

- Ensemble Framework For Flash Flood Forecast (EF5) Version 1.3

TECHNICAL STRENGTHS

Programming Languages	Python (Proficient), QGIS (Proficient), Matlab, R, Fortran, C++
Skills	Machine Learning, Geospatial Data Processing, Remote Sensing, Computer Vision, Web Development, LaTeX
Hydologic models	SUPERFLEX, HBV, FLEX-TOPO, CREST, CREST-iMAP, WRF-Hydro
Numerical Weather Predictions	WRF
Artificial Intelligience	ANN, RNN, CNN, SVM, RF, etc.

CERTIFICATIONS

- Graduate Colleage Hoving Fellowship

- Teaching Assistant at university of Oklahoma

- Research Assistant at university of Oklahoma

- Academic Scholarship at Hohai University

- Social Work Scholarship at Hohai University

- Spiritual and Cultural Scholorship at Hohai University

- Excellent Student Leader Award at Hohai University

- The Third Prize in the Video Production Competition at Hohai University

- The Third Prize and The Best Appealing Award at the Dam Design Competition

- Excellent Volunteer Award of the 2014 Nanjing Youth Olmpic games

LANGUAGE

Chinese	Excellent
English	Good