



Zhenyu Yu

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[Google Scholar](#) | [Research Gate](#)

EDUCATION BACKGROUND

Yunnan Normal University

Kunming, China

Doctor of Science

Sept 2018– Jun 2022

Major: Geographic Information System

Yunnan Normal University

Kunming, China

Master of Engineering

Sept 2015– Jun 2018

Major: Software Engineering

GPA: 3.6/4.0 (ranking first in the class)

Yunnan Normal University

Kunming, China

Bachelor of Engineering

Sept 2011– Jun 2015

Major: Computer Science and Technology

Bachelor of Economics

Sept 2012– Jun 2015

Major: Economics

PROFESSIONAL EXPERIENCE

Guangdong Baiyun University

Guangzhou, China

Lecturer

Sept 2021 – Jun 2022

- Taught undergraduate students courses related to software engineering and computer science.

RESEARCH EXPERIENCE

Postdoctoral Fellow in Station of Statistics/Remote Sensing Big Data Intelligent Application Innovation Center, Guangzhou University

Sept 2022 – Present

- Conduct research on AI for science, multi-source image fusion, and remote sensing parameter inversion;
- Work on the following projects: *Impact of Climate Change on SARS-CoV-2 Epidemic in China* and *AI for Science: Data Estimation of Carbon stocks and Carbon Stock Spatiotemporal Distribution Based on Deep Learning*.

Engineering Research Center of GIS Technology in Western China of Ministry of Education of China

Sept 2015 – Jul 2022

- Focused on AI for science;
- Participated in a research project aimed at the monitoring of lake surface water temperature and lake water environment governance on the basis of deep learning.

Publications

- **Achievements:** Published 27 papers, including 7 in *Chinese Academy of Sciences (Division I)*, 10 in *JCR (Q1)*, 8 in top journals, 15 in SCI journals, and 6 in Chinese core journals, with 706 citations from Google Scholar
- **Selected Journal Papers:**
 - J.1 Yu, Z., Wang, J., Wang, P., & Xie, Y. Estimating forest carbon stocks from high-resolution remote sensing imagery by reducing domain shift with style transfer. *Remote Sensing of Environment*. (SCI, Q1, TOP) (Under review)
 - J.2 Yu, Z., Wang, J., Gao, S., & Hao, M. Improved implicit diffusion model with knowledge distillation to estimate the spatial distribution density of carbon stock in remote sensing imagery. *IEEE Transaction on Geoscience and Remote Sensing*. (SCI, Q1, Top) (Under review)

- J.3** Yu, Z., Yang, K., Luo, Y., & Shang, C. (2020). Spatial-temporal process simulation and prediction of chlorophyll-a concentration in Dianchi Lake based on wavelet analysis and long-short term memory network. *Journal of Hydrology*, 582, 124488. <https://doi.org/10.1016/j.jhydrol.2019.124488> (SCI, Q1, TOP)
- J.4** Yu, Z., Wang, J., Yang, X., & Ma, J. (2022). Superpixel-based Style Transfer Method for Single-temporal Remote Sensing Image Identification in Forest Types. *Remote Sensing*. (SCI, Q1, TOP)
- J.5** Yu, Z., Yang, K., Luo, Y., Wang, P., & Yang, Z. (2021). Research on the lake surface water temperature downscaling based on deep learning. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, 1-1. <https://doi.org/10.1109/jstars.2021.3079357> (SCI, Q1)
- J.6** Yu, Z., Yang, K., Luo, Y., & Yang, Y. (2021). Secchi depth inversion and its temporal and spatial variation analysis - A case study of nine plateau lakes in Yunnan Province of China. *International Journal of Applied Earth Observation and Geoinformation*, 100, 102344. <https://doi.org/10.1016/j.jag.2021.102344> (SCI, Q1, TOP)
- J.7** Yang, K.¹, Yu, Z.¹, & Luo, Y. (2020). Analysis on driving factors of lake surface water temperature for major lakes in Yunnan-Guizhou Plateau. *Water Research*, 184, 116018. <https://doi.org/10.1016/j.watres.2020.116018> (SCI, Q1, TOP)
- J.8** Yu, Z., Yang, K., Luo, Y., Shang, C., & Zhu, Y. (2020). Lake surface water temperature prediction and changing characteristics analysis - A case study of 11 natural lakes in Yunnan-Guizhou Plateau. *Journal of Cleaner Production*, 276. <https://doi.org/10.1016/j.jclepro.2020.122689> (SCI, Q1, TOP)
- J.9** Yang, K., Yu, Z., Luo, Y., Yang, Y., Zhao, L., & Zhou, X. (2018). Spatial and temporal variations in the relationship between lake water surface temperatures and water quality - A case study of Dianchi Lake. *Science of the Total Environment*, 624, 859-871. <https://doi.org/10.1016/j.scitotenv.2017.12.119> (SCI, Q1, TOP)
- J.10** Yang, K.¹, Yu, Z.¹, Luo, Y., Zhou, X., & Shang, C. (2019). Spatial-Temporal Variation of Lake Surface Water Temperature and Its Driving Factors in Yunnan-Guizhou Plateau. *Water Resources Research*, 55(6), 4688-4703. <https://doi.org/10.1029/2019WR025316> (SCI, Q1, TOP)
- **Selected Conference Papers:**
- C.1** Yu, Z., & Wang, P. (2024). CaPAN: Class-aware Prototypical Adversarial Networks for Unsupervised Domain Adaptation. *IEEE International Conference on Multimedia and Expo (ICME) 2024*. (Accepted, Oral Presentation, Top 15%, CCF-B)
- C.2** Wang, P., Yang, Y., & Yu, Z. (2024). Multi-batch Nuclear-norm Adversarial Network for Unsupervised Domain Adaptation. *IEEE International Conference on Multimedia and Expo (ICME) 2024*. (Accepted, Oral Presentation, Top 15%, CCF-B)

ACTIVITIES

- **Volunteer** for the United Nations Children's Fund (2023)
- **Silver Medal Winner** for the *LLM Science Exam – Use LLMs to answer difficult science questions* competition hosted by Kaggle (89/2662, Top 4%; 2023)
- **Bronze Medal Winner** for the *HuBMAP – Hacking the Human Vasculature* competition hosted by Kaggle (75/1021, Top 8%; 2023)
- **Reviewers** for such journals as *Water Research*, *Science of the Total Environment*, *Stochastic Environmental Research and Risk Assessment*, *IEEE Access*, *ICME*, and *ICIP*

AWARDS

- Excellent Graduation Thesis in Yunnan Province (2023, Top 0.01%)
- Nomination for Principal Scholarship (2017, 2021, Top 0.1%)
- Merit Student in Yunnan Province (2021, Top 0.1%)
- Outstanding Graduates (2015, 2018, 2022, Top 0.5%)
- National Graduate Scholarship (2017, 2020, 2021, Top 1%)
- Excellent Graduation Thesis in Yunnan Normal University (2015, 2022, Top 1%)
- Yunnan Provincial Government Scholarship (2016, 2019, Top 5%)

- First Prize of Academic Scholarship in Yunnan Normal University (2015, Top 10%)
- National Computer Technology and Software Professional Technical Qualification (Level) Examination-Information System Project Manager (Senior-Level) (2016)
- High School Teacher Qualification Certificate for Information Technology (2015)
- National Computer Technology and Software Professional Technical Qualification (Level) Examination-Software Designer (Intermediate-Level) (2014)

ADDITIONAL INFORMATION

- **English Skills:** Fluently
- **Technical Skills:** Deep learning frameworks (PyTorch, Keras); GIS software (ArcGIS, ENVI); Programming languages (Python, R, Matlab, Java, JavaScript); Cloud platforms (Google Earth Engine)
- **Hobbies:** Playing basketball, volleyball, the cucurbit flute, and video games