Yu Wang

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Education

Wuhan University **Spatial Information and Digital Technology** **B.Eng. Sep. 2019 – Jul. 2023**

- GPA: 88.28 / 100 Rank: 5 / 53
- Coursework: Calculus (97), Linear Algebra (93), Probability Theory (93), Stochastic Processes (94)

Wuhan University **Remote Sensing Science and Technology** **M.Eng. Sep. 2023 – Jul. 2026 (Expected)**

- GPA: 88.08 / 100 Rank: N/A

Research/Project Experience

Guangdong Provincial Center for Land and Resources **Mar. 2022 – Sep. 2022**

- Proposed a decoupled neural architecture search (NAS) method for efficiently finding lightweight semantic segmentation models.
- The lightweight model was applied in the center's vegetation extraction software.

Ant Group **Jun. 2023 – Jun. 2024**

- Developed a knowledge graph reasoning method aggregating multi-modal urban data for large-scale urban functional zone classification.
- The nationwide urban functional zone classification data produced by this method was utilized in Ant Financial's risk assessment models.

China Mobile (Shanghai) Research Institute **Oct. 2024 – Mar. 2025**

- Proposed a method to extract multiple types of vector geographic objects from large-scale remote sensing imagery, directly generating city-wide vector results.
- The vectorized data produced by this method significantly reduced the company's manual workload for drawing vector maps.

Alibaba Amap Group **May 2025 – Present**

- Conduct research on visual reasoning for multi-modal remote sensing data.

Publications

Wang Y, Li Y, Chen W, et al. DNAS: Decoupling Neural Architecture Search for High-Resolution Remote Sensing Image Semantic Segmentation. *Remote Sensing* 14.16 (2022): 3864. [Paper] [Code]

Li Y(supervisor), **Wang Y***, Yu L, et al. Learning to Reason over Multi-Granularity Knowledge Graph for Large-Scale Urban Land Use Mapping. *Remote Sensing of Environment (Major Revision).* [Paper] [Code]

Wang Y, Dang B, Li W, et al. HoliTracer: Holistic Vectorization of Geographic Objects from Large-Size Remote Sensing Imagery. *ICCV 2025.* [Paper] [Code]

Personal Projects

EarthVec [Website]

- A Python toolkit integrating various remote sensing image vectorization datasets and methods.
- Tech Stack: PyTorch, GDAL, Python Parallel Computing.

Geo2Graph [Website]

- An online web application for building geo knowledge graph.
- Tech Stack: Neo4j, D3.js.

Luo-Sky [Website]

- An online web application for interpreting remote sensing images, including features like road extraction and building change detection.
- Tech Stack: PaddlePaddle, Vue.js, Django.

Honors and Awards

- 12th National Scientific Paper Contest — Grand Prize — **Jun. 2022**
- 11th China Software Cup — Second Prize — **Aug. 2022**
- Outstanding Student Cadre (Faculty Level) — Honorary Title — **Aug. 2022 & Aug. 2023**

Skills

- **Programming**: Python, C++, JavaScript, LaTeX, Vim
- **Languages**: English (CET-6: 523), Chinese (Native)