Zheng Wang

PhD

Work History

2022.07 – Scientific Developer II

present

3vGeomatics, Vancouver, BC, Canada

- Led the full lifecycle of two deep learning projects, including self-supervised residual distribution for InSAR phase restoration and SAR image despeckling.
- Co-supervised four PhD deep-learning projects in collaboration with the University of Alberta.
- Streamlined waterbody data labeling using Google Earth Engine, reducing time cost by over 99% (from one week to five minutes for a site of 3000 km²).

2019.07 – 2022.07

Data Scientist

3vGeomatics, Vancouver, BC, Canada

- Served as principal investigator for a three-year, \$400K research project aimed at monitoring millimeter displacements in the Arctic for protecting infrastructure and properties from permafrost degradation.
- Designed an automatic QC pipeline to inspect all critical data processing steps in regular production.
- Developed a global snow coverage detection tool by leveraging optical imagery for radar data selection, which led to a reduction of up to 20% in the company's commercial data cost.

Education

 $2015-2019\,\,$ PhD: Geomatics, Newcastle University, UK

- Thesis: Ground-based synthetic aperture radar interferometry for deformation monitoring.
- <u>The Best Doctoral Thesis of 2019</u> awarded by the UK's Remote Sensing and Photogrammetry Society.

2008-2015~ MEng & BEng: Photogrammetry and Remote Sensing, Wuhan University, China

Contact

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Website

https://willzhengwang.github.io/ homepage/

Expertise/Skills

Remote Sensing

Photogrammetry and Computer Vision

Deep Learning

PyTorch, TensorFlow, Lightning-Hydra Pipeline

GPU, Distributed Data Parallel

Google Earth Engine

Python, C/C++, Matlab

Data Structures & Algorithms

Research Publications