# YUZHOU ZHOU

M.Sc. Candidate, Wuhan University zhouyuzhou@whu.edu.cn

#### **OVERVIEW**

Candidate for a master's degree in Photogrammetry and Remote Sensing

State Key Laboratory of Information Engineering in Surveying, Mapping and Remote Sensing (LIESMARS), Wuhan University (WHU), Wuhan, China

Research interests: point cloud processing; 3D deep learning; intelligent transportation applications of 3D vision

## **EDUCATION**

#### M.Sc. in Photogrammetry and Remote Sensing

Sep. 2019 - Jun.2022

State Key Lab of Information Engineering in SMARS(LIESMARS), Wuhan University Advised by Prof. Bisheng Yang

Wuhan, China

# B.Eng. in Geomatics Engineering

Sep. 2015 - Jun.2019

School of Geodesy and Geomatics, Wuhan University

Wuhan, China

GPA: 3.88/4.00 (2nd in 302 students)

## RESEARCH EXPERIENCES

# Transportation Infrastructure Health Monitoring via 3D Sensory Data

Dec. 2019 - Present

Advised by Prof. Bisheng Yang, LIESMARS, Wuhan University

Wuhan, China

• Currently designing methods for roadside object detection by integrating panoramic images and mobile laser scanning data.

## 3D Reconstruction of Highway Geometrical Characteristics

Aug. 2018 - Nov. 2019

Advised by Prof. Bisheng Yang, LIESMARS, Wuhan University

Wuhan, China

- Proposed a method for detecting highway pavement and boundary from aerial point cloud.
- Designed an optimization based fitting algorithm for road 3D alignments reconstruction.
- Invention Patents: An Automated Method for Highway Extraction and Vectorization via Aerial Point Cloud.

## Applications of Laser Scanning in Cultural Relics Preservation

Feb. 2018 - Jun. 2018

Project of Innovation and Entrepreneurship Training for Undergraduates

Wuhan, China

• Implemented geometrical reconstruction of small-sized cultural relics based on Delaunay TIN.

#### **INTERNSHIP**

#### **GIS** Software Developing

Jul. 2018 - Sep. 2018

GIS Technology Group, Department of System Architecture, JD(Jingdong) Logistics

Beijing, China

• Parsing customers' delivery address and locate them in pre-segmented geofences based on Baidu Map Web API.

## Point Cloud Processing Software Developing

Jul. 2019 - Aug. 2019

Sichuan Highway Planning, Survey, Design and Research Institute Ltd.

Chengdu, China

- Developed CloudCompare plugins for ground point cloud extraction, highway pavement detection, 3D road alignments reconstruction and cross section output.
- Software Copyright: CloudCompare Based Highway Laser Point Cloud Processing Software.

#### PROGRAMMING AND ENGLISH SKILLS

- Experience in C/C++(with PCL, OpenCV, Ceres-Solver, CGAL, etc.), Python(with PyTorch), MATLAB, CloudCompare Plugins Development.
- TOEFL(Jul. 2017): 101(S26, R27, L26, W22).