

Zhen Liu

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EDUCATION

Clark University, Worcester, Massachusetts	07/2021 (expected)
• Master of Science (M.S.) in GIS (Geographical Information Science)	
Wuhan University, China	07/2019
• Bachelor of Engineering (B.E.) in Geodesy and Geomatics Engineering	

SKILLS

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- Programming: Python, JavaScript, R, C#, MATLAB
 - GIS: ArcGIS, QGIS, ArcEngine, AutoCAD
 - WebMapping: Leaflet
 - Raster Analysis: ENVI, ERDAS IMAGINE, TerrSet, Google Earth Engine
 - Database: SQL Server

EXPERIENCE

Summer Research Fellow

Cloud to Street	5/2020-8/2020
• Improved the accuracy assessment in the flood risk maps.	

Research Assistant

Clark Labs	11/2019-
• Developed the open-source version of the website "Coastal Habitats and Conversion to Pond Aquaculture".	
• Processed landcover data and visualize data through the bar chart and the pie chart.	

Project Manager

Intelligent librarian searching and arranging system based on GIS and RFID	3/2017-6/2019
• Oversaw project design and lead software development using ArcEngine and SQL.	
• Designed functions to find the shortest distance using Dijkstra and Greedy algorithms.	
• Awarded funding from the 2017 National Students' Platform for Innovation and Entrepreneurship Training Program.	

Summer intern

Shanghai Surveying and Mapping Institute, Shanghai, China	7-8/2018
• Preprocessed images for land monitoring (feature detection, feature matching, and cloud screening).	
• Surveyed and scanned the metro station in Shanghai city, using total stations and 3D scanner.	
• Processed 3D point cloud for Shanghai Metro Line 10 using 3DReshaper	

Project Manager

3D model of cylinder object reconstruction from photograph	12/2018-8/2019
• For cylindrical objects, innovatively proposed the use of feature extraction to compensate for the uneven distribution of generated point clouds.	
• Detected features of objects using ellipse fitting and plane fitting algorithms.	
• Rendered models in the method of 2D+3D.	

PUBLICATIONS & PATENTS

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- Liu Z. & Yang S.F., A rewinding device for RFID antenna
 - Liu Z., Intelligent librarian searching and arranging system based on GIS and RFID

RECOGNITION

• The Edna Bailey Sussman Fund	2020
• Scholarship from Hi-Target Surveying Instrument Co., Ltd	2015-16
• Academic Scholarship of Wuhan University, 1st class	2016-2017