

# Jialin Li

(614)787-5776    li.7957@osu.edu

## EDUCATION

### The Ohio State University

Ph.D. in GIS, Department of Geography

Dual M.S. in Computer Science, Department of CSE

### Central South University, Department of Geomatics

B.S. in Geomatics

M.S. in GIS

08. 2017 - Present

GPA 4 / 4

GPA 3.96 / 4

09. 2010 - 05. 2017

GPA 88.45 / 100

GPA 3.8 / 4

## PROFESSIONAL EXPERIENCE

### Programming Language Designing (Course Project)

01. 2020 - 04.2020

- Implemented type checking, memory management and concurrency for the interpreter of a programming language called Quandary, which is developed by Prof. Mike Bond using **Java** for the course

### Synergistic Monitoring System for Emergent Disasters (Research Assistant)

05. 2016 - 06.2017

- Designed and built a database to store information of observing devices for emergent disasters, e.g., satellites, UAVs, and street cameras using **SQL Server**
- Developed a module in the software system with user interface to query and show device information from the database using **C#** and together with ArcEngine tool to show locations of the devices on a map plug-in

### GPS Data Processing (Course Project)

09. 2015 - 10.2015

- Developed a program with a user interface to read and process GPS data using Microsoft Foundation Class (MFC), which is a **C++** object-oriented library for developing Windows desktop applications
- Computed and showed geographical coordinates of GPS satellites and observation points on the earth

### Optimization of Point Feature Label Placement (Research Project)

09. 2018 - Present

- Proposed an agent-based model of point feature label placement on geographic maps
- Implemented the model in **Python** and compared with other methods including linear programming

### Frontend Development of a Sustainability Dashboard (Research Assistant)

05. 2019 - 05.2020

- Developed an online dashboard for MORPC (Mid-Ohio Regional Planning Commission) to present the progress of regional sustainability using **JavaScript**
- D3 was used to draw charts for different sustainability indicators on the dashboard and Leaflet was used to display a regional map of middle Ohio and to dynamically link proportional symbols on map with the charts

### Map Element Detection (Research Project)

09. 2018 - Present

- Detected map elements (titles and legends) by finetuning generic object detection models such as Faster R-CNN and YOLO models using TensorFlow and PyTorch libraries in **Python**

## SELECTED PUBLICATIONS

**Li Jialin** et al., A Method of Spatial Interpolation of Air Pollution Concentration Considering Wind Direction and Wind Speed [J]. Journal of Geo-information Science. 2017,19(03):382-389.

**Li Jialin** et al., Residual Inverse Distance Weighting Spatial Interpolation Method Based on Spatial Heterogeneity Sub-region [J]. Geography and Geo-Information Science, 2015, 31(5):25-29.

## Programming Languages

**Main (daily use):** Python, JavaScript

**Experienced:** C++, C#, Java, MATLAB

## SELECTED AWARDS & HONORS

Travel Award in Spatial Analysis and Modeling Session in Annual Meeting of AAG

12.2017

Wuhan Area Code Craft 2016, Team Silver Medal

05.2016

National Scholarship of Chinese Government

09.2013