

# Zhiwei (Iris) Yan

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995 Jefferson Commons Circle, St. Paul, MN 55114

## EDUCATION BACKGROUND

### University of Minnesota - Twin Cities

Minneapolis, MN

Candidate for Master of Geographic Information Science

Anticipated in May 2019

Pursuing Computer Science Graduate Minor

GPA: 3.9/4.0

### University of Waterloo

Waterloo, Canada

Bachelor of Environmental Studies, Geomatics

September 2015 - June 2017

Minor in Computer Science

GPA: 3.73/4.0 | Dean's Honors List

### Wuhan University

Wuhan, China

Bachelor of Science, Geographic Information Science and Cartography

September 2013 - June 2017

## SKILLS

**Application Software:** ArcGIS, Oracle, MySQL, MATLAB, SPSS, NetLogo, ENVI

**Computer Languages:** Python, C, C++, SQL, HTML, CSS, JavaScript

**Languages:** Chinese Mandarin (native); Chinese Cantonese (native); English (fluent)

## WORK EXPERIENCE

### Student Worker | Minnesota Department of Transportation

St. Paul, Minnesota

- Produced Minnesota highway maps alongside 4 coworkers
- Provided geographic information and mapping support to other offices

May 2018 - Present

### Teaching Assistant | Advanced Geocomputing Course

Minneapolis, Minnesota

- Helped with assignment grading and design of the geospatial data and social media lab

September 2018 - Present

### Student Assistant | Esri Federal GIS Conference

Washington D.C.

- Registered attendees and assisted with technical workshops

March 2018

### Intern in Big Data Center | Guangdong Rural & Urban Planning and Design Institute

Guangzhou, China

- Collected POIs (Points of Interest) from online maps using Python
- Designed a location evaluation model and conducted analysis to select the optimal locations

June 2017 - August 2017

## RESEARCH EXPERIENCE

### Modeling Tourist Movement Using Modified Levy Flight

January 2018 - May 2018

- Proposed using a truncated biased Levy flight to simulate tourist movements in a city
- Used actual tourist movement data collected from Flickr to parameterize the movement model
- Developed an agent-based model and an interface in NetLogo to implement the model and controls some parameters

### Mapping Twin Cities Traffic Stops

September 2017 - December 2018

- Identified the clusters of over 730,000 traffic stops in Twin Cities using Moran's I statistics
- Built a web map to visualize the distribution of traffic stops and demographic information

### Use VGI to Identify and Analyze Top Tourist Attractions

September 2016 - April 2017

- Collected over 230,000 geotagged photos from Flickr using PHP to visualize the spatial distribution of photos
- Used database techniques and MySQL to distinguish between photos taken by tourists and by locals

**Published in *Applied Spatial Analysis and Policy*, first author**

- Collected hotel data in 10 cities and used the Q statistic to identify the distribution of different kinds of hotels
- Discovered the spatial association patterns of hotels and analyzed the reasons and the implications

**EXTRACURRICULAR ACTIVITIES**

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Participated in the ECCE App Challenge 2016 held by Esri Canada 2013 -2015

- Developed an app named “Where is Water” to provide an interactive map of drinking fountains in Waterloo Region

Associate Leader of Student Union 2013 -2015

- Helped to organize events and competitions for over 1200 students

Head of Promotion Department of Cantonese Cultural Association 2013 -2015

- Led the members to design posters and/or make videos and managed the social media