

# Zhiwei (Iris) Yan

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995 Jefferson Commons Circle, St. Paul, MN 55114

## EDUCATION

### University of Minnesota - Twin Cities

Minneapolis, MN

Candidate for MS in Data Science

Anticipated in May 2021

Master of Geographic Information Science

GPA: 3.85/4.0

### 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

## RELATED COURSEWORK

**GIS:** Urban GIS, Spatial Database, Spatiotemporal Modeling, Web GIS and Services, Remote Sensing

**Computer Science:** Data Mining, Machine Learning, Spatial Computing, CyberGIS

## SKILLS

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

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

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

## WORK EXPERIENCE

### Research Assistant | Department of Geography, Environment & Society

Minneapolis, Minnesota

- Create technical systems and services to support the Hour of CI project
- Administrate the system of GISandbox and Hour of CI platforms

December 2019 - Present

### Student Worker | Minnesota Department of Transportation (MnDOT)

St. Paul, Minnesota

- Produced Minnesota highway maps alongside 4 coworkers
- Provided advanced GIS and Mapping support to multiple business units with MnDOT

May 2018 - May 2019

### Student Assistant | Esri Developer Summit

Palm Springs, California

- Registered attendees and assisted with technical workshops

March 2019

### Teaching Assistant | Advanced Geocomputing Course

Minneapolis, Minnesota

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

September - December 2019

### 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 - August 2017

## RESEARCH EXPERIENCE

### Modeling Tourist Movement Using Modified Levy Flight

January - 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 control some parameters

**Mapping Twin Cities Traffic Stops**

September - December 2017

- 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
- Automated differentiation between photo records using database techniques within MySQL

**Mining Colocation Patterns of Hotels with the Q statistic**

February 2015 - August 2017

**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

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**EXTRACURRICULAR ACTIVITIES**

Participated in the ECCE App Challenge 2016 held by Esri Canada

2016

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

Associate Leader of Student Union

2014 -2015

- Helped to organize events and competitions for over 1200 students

Head of Promotion Department of Cantonese Cultural Association

2014 -2015

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