Department of Geography
The Ohio State University
1131 Derby Hall
Columbus, Ohio, 43210
Email: li.7957@osu.edu

Jialin Li

Education

Aug.2017 – Present   The Ohio State University   *Ph.D. student in Geography*

- **Major:** Geographical Information Science

Sep.2014 – Jun.2017   Central South University   *Master of Engineering*

- **Major:** Cartography and Geographical Information Engineering

Sep.2010 - Jun.2014   Central South University   *Bachelor of Engineering*

- **Major:** Geomatics Engineering

Research Experience

May.2016 – May.2017   Synergistic Monitoring and Planning Schedule System of Multi-type Observation Resources for Emergency Disasters (SQL Server, C#, ArcEngine)

Advisor: Prof. Min Deng,   Dr. Haifeng Li

- Created a model to describe the different kinds of observing resources in a unified way based on Sensor Modeling Language(Sensor ML)
- Constructed the databases of different kinds of observing resources, such as satellites, unmanned aerial vehicles (UAV), and cameras on the street based on the description model
- Learned the knowledge of common geological disasters and built the knowledge base for the application of Remote Sensing in the disasters
- Established the ontology of disasters and used the reasoning tool to accomplish the Semantic matching between the observing resources and specific tasks in order to screen the suitable observation resources
- Delving the solutions of the observing resources planning for emergency disasters

Jun.2014 – Oct.2015   Modeling and Predicting the Concentration of Air Pollution (NEC China Institution Project) (MySQL, Matlab, C#)

Advisor: Prof. Min Deng

- Collected and sorted air pollution data in Beijing in Database with MySQL

- Completed the missing observation data by a proposed space-time interpolation method and constructing the surface for air pollution concentration

- Detected the relationship between various meteorological and human factors with the help of Spatial Association Mining technology

- Predicted the Concentration of Air Pollution in Beijing using the common spatial-temporal prediction methods, for instance, the proposed model Spatio-temporal Extreme Learning Machine

Sep.2014 - Jan.2016   Multi-source Monitoring Data Fusion of the Concentration of Fine Particulate Matter in Air (C#, ArcEngine, Matlab, MySQL)

Advisor: Prof. Min Deng

- Computed the concentration of fine particulate matter in the grid points in Beijing using multi-source monitoring data respectively and raised a solution for the multi-source data fusion

- Developed a spatial interpolation method considering the factors of wind direction and strength for the air pollutant diffusion in order to improve the performance of spatial interpolation

- Applied the proposed spatial interpolation method into the air pollution concentration interpolation in city road network to acquire the concentration in different road segment

Internship Experience

Jun.2015 – Aug.2015   CIMC Intelligent Technology CO., LTD.   Shenzhen, China

Intern Technician

- Studied the basic theoretical knowledge and practical skills about Location Service and the process of Container Remote Monitoring

- Assisted in sorting and updating the Map data, maintaining and managing different kinds of Databases and processing GPS data in the project, *Container Remote Monitoring System*

- Participated in the developing of the Monitoring System Platform of the project

Achievements

- 2016.5　HUAWEI Code Craft 2016, Wuhan Area Site Silver Medal
- 2015.12　Excellent Graduate Student of Central South University
- 2013.9　National Scholarship of China Government

  The Special Prize Scholarship of Central South University
- 2012.6　The 3rd Surveying Competition in Hunan Province, First Prize

Published Papers

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

- Fan Zide, **Li Jialin**, Deng Min. An Adaptive Inverse-Distance Weighting Spatial Interpolation Method with the Consideration of Multiple Factors [J]. *Geomatics and Information Science of Wuhan University,* 2016, 41(6):842-847.

- Fan Zide, Gong Jianya, Liu Bo, **Li Jialin**, Deng Min. A Space-time Interpolation Method of Missing Data Based on Spatio-temporal Heterogeneity [J]. Acta Geodaetica et Cartographica Sinica, 2016, 45(4):458-465.

Professional Skills

Computer Skills

- **C++, MATLAB, C#:** proficient
- **Python and Java Script:** in progress of learning
- **Database:** SQL Server, MySql

GIS software: ArcGIS, Surfer, GeoDa