# Anran Yang

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## Education

National University of Defense Technology, Changsha, P.R.China

PhD candidate in Geographical Information System, 2010 - present

University of Heidelberg, Heidelberg, Germany

Visiting Scholar, 2014 - 2015

Peking University, Beijing, P.R.China

B.S. Degree in Geographical Information System, 2006 - 2010

## Skill

### **Programming**

- Very experienced in Python, JavaScript (front-end technologies) and R
- Fluent in C++, C#, Ruby, SQL, Bash and Make
- Very experienced in Linux

### Research

- Spatial analysis and data visualization
- Statistics, CSP, and abstract algebra

### **Others**

- LaTeX
- Graphics design
- Drawing

## Research Experience

### **Volunteered Geographic Information**

GIScience Research Group, University of Heidelberg (research adviser: Prof. Dr. Alexander Zipf), Geographical information system & science Research Group, National University of Defense Technology (research adviser: Prof. Dr. Ning Jing),

2014 - present; Major work:

- VGI data processing and analysis, SQL, Python, R, Bash, Make

### **High performance GIS**

Geographical information system & science Research Group, National University of Defense Technology (research adviser: Prof. Dr. Ning Jing),

2011 - 2014; Major work:

- Design and development of the computing engine which schedules
  HPC tasks, C++
- Design of the system architecture and user interface of the frontend web application and implementation of the application with colleagues, Ruby on Rails, JavaScript, HTML, CSS
- Design and development of the initial versions of the cartography service and the data service, *Python*, *SQL*
- Deployment and administrative tools, Python, Bash

#### Tourist attractiveness research

Geosoft Lab, Peking University (research adviser: Dr. Yi Zhang), 2007 - 2011; Major works:

 Analysis of the relationship in quantity and between the spatial distribution of attractiveness of tourist attractions and the backlinks to the websites of the attractions, C#

## **Publication**

- A. Yang, H. Fan, N. Jing, Y. Sun, and A. Zipf, "Temporal Analysis on Contribution Inequality in OpenStreetMap: A Comparative Study for Four Countries," ISPRS International Journal of Geo-Information, vol. 5, no. 1, p. 5, Jan. 2016.
- A. Yang, L. Liu, L. Chen, and N. Jing, "Geographical Workflow System over HPC Clusters Based on MPI", in Proceedings of the 12th International Conference on GeoComputation, Wuhan, P.R.China, 2013
- L. Liu, A. Yang, L. Chen, W. Xiong, Q. Wu, and N. Jing, "HiGIS-When GIS Meets HPC", in Proceedings of the 12th International Conference on Geo-Computation, Wuhan, P.R.China, 2013
- Y. Zhang, L. Qi, A. Yang, L. Shi, and L. Xu, "Investigating spatial distribution of tourist attractions' inlinks: A case study of three mountains," Sci. China Technol. Sci., vol. 53, no. 1, pp. 126–133, May 2010