# Dapeng Li

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## Education

8/2011-present **PhD** in Geography (in progress), Department of Geography, *University of Utah*, USA
Research interests: Emergency Management, GIS, Transportation, Mobile Computing

9/2008-7/2011 **M.S.**, Institute of Remote Sensing & GIS, *Peking University*, P.R. China
Major: Cartography and Geographic Information Systems

9/2004-7/2008 **B.S.**, School of Information Engineering, *China University of Geosciences*, P.R. China
Major: Geographic Information Systems

## Research Experience

8/2011-present **Center for Natural and Technological Hazards (CNTH)**
Department of Geography, *University of Utah*, USA, **Research Assistant**
Project: Protective Action Triggers (NSF)

- Collected wildfire evacuation zone boundary data in the western US during the 2011 fire season
- Collected wildfire evacuation data in the western US during the 2012 fire season
- Conducted dynamic traffic simulation in Julian, CA
- Performed WUIVAC modeling and simulation in Julian, CA
- Utilized geocoding/reverse geocoding in Julian, CA

9/2008-6/2011 **Institute of Remote Sensing & Geographic Information Systems**
*Peking University*, P.R. China, **Research Assistant**

- Collected topographic map division sheet data
- Geovisualized the Chinese National Topographic Map Division boundaries
- Mapped geographic grids of Taiwan
- Prepared literature review for a book chapter in the book titled "Introduction to Organizing Spatial Information Using a Subdivision Framework" (in Chinese)

## Work Experience

7/2010-9/2010 **IBM China Development Laboratory (CDL), Software Engineer (intern)**
Participated in the test and technical support for Tivoli Provisioning Manager

- Used Build Forge to install Tivoli Provisioning Manager automatically
- Processed the installation logs using Perl

Tools: RedHat Linux, Perl, Build Forge, Windows Server 2003

6/2009-9/2009 **The Near-Space Information Engineering Research Center**
*Peking University*, P.R. China, **Software Engineer**
Participated in the development of a 3D terrain environment:

- Constructed a 3D terrain environment using C#, ArcEngine, Visual C++ and OpenGL

Tools: Visual C#, Visual C++, OpenGL, ArcEngine

6/2008-8/2008 **The Near-Space Information Engineering Research Center**

*Peking University*, P.R. China, **Software Engineer**

Participated in the development of a Spatial Information Mobile Service System:

- Used eMbedded Visual C++ to develop the client
- Developed the user management module at the server-side using Visual C++ 6.0 & SQL Server

Tools: eMbedded Visual C++, Visual C++, SQL Server

7/2007-1/2008 **ImageInfo (Beijing) Co. Ltd, Software Engineer in Test (intern)**

Participated in the development of Global Spatial Information Service System:

- Tested the components using Visual C++ 6.0
- Designed test cases and wrote test documents

## Awards & Honors

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| 2009-2010 | Second-class Scholarship for Graduate Student, *Peking University* |
| 2008 | First-class Scholarship for Graduate Student, *Peking University* |
| 2007 | Sino Petroleum & Chemical Scholarship, *China University of Geosciences (Beijing)* |
| 2006 | Study Model of China University of Geosciences (Beijing) |
| 2005 | Second Prize in the 2005 National English Contest for College Students |
| 2005 | Second-class National Scholarship, *China University of Geosciences (Beijing)* |
| 2005 | Third Prize in Mathematics Competition, *China University of Geosciences (Beijing)* |
| 2004-2007 | First-class Professional Scholarship, *China University of Geosciences (Beijing)* |

## Refereed Journal Articles

2010 Geng, X., Cheng, C., Song, S., & **Li, D**. "Global Subdivision Systems Based on Map Kilo-Grids". *Geography and Geo-Information Science*, 2, 003. (in Chinese)

## Refereed Conference Preceedings

2009 **Li, D.**, and Cheng, C. "A proposed architecture for emergency response systems based on Digital Earth". *International Society for Optics and Photonics*, 78400V-78400V-8.

## Conference Presentations

2013 **Li, D.** "Social media in natural disasters: mapping tweet density in Hurricane Sandy". *Maps on the Hill*, Salt Lake City, Utah.

2009 **Li, D.**, and Cheng, C. "A proposed architecture for emergency response systems based on Digital Earth." *The Sixth International Symposium on Digital Earth*, Beijing, China.

## Other Publications

2010 Qi, Y., **Li, D.**, Fang, W., et al. "Using Build Forge to Install Tivoli Provisioning Manager". *IBM SSPD database*, Document ID: TD105637.

## Professional Affiliations

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| 2013-present | American Association of Geographers (AAG) |
| 2013-present | Cartography and Geographic Information Society (CaGIS) |

## Other Projects

11/2012-12/2012 **Using Online Reverse Geocoding Services to Set Wildfire Evacuation Triggers, Primary Developer**

Description: This project used various kinds of free online reverse geocoding services from different companies or agencies to derive a set of features around the boundary

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| | of a wildfire evacuation trigger buffer.<br>Tools: **Python, XML, JSON, ArcGIS, ArcPy, Reverse Geocoding APIs** |
| 10/2012-11/2012 | **Twitter Mapping in Hurricane Sandy, Primary Developer**<br>Description: This project collected tweets with explicit geographic coordinates within a limited time window in the New Jersey area during and after Hurricane Sandy. The Twitter data collected was imported into ArcGIS and overlaid on a U.S. population map. A basic word count analysis was accomplished for the Twitter datasets.<br>Tools: **MySQL, ArcGIS, Python, Natural Language Processing** |
| 9/2012-10/2012 | **Twitter Data Collection System (TDCS), Primary Developer**<br>Description: The primary objective of this project was to use Twitter API to collect Twitter data. The geotagged Twitter data (with geographic locations) was collected in real time via the Twitter stream API. The collected data was stored in a local MySQL database simultaneously.<br>Tools: **Java, MySQL, Twitter API, JSON** |
| 7/2012-10/2012 | **UTA Bus Tracking System Based on Android, Primary Developer**<br>Description: This project used the data provided by Utah Transit Authorities (UTA) for developers to build an Android app that can be used by the public to catch the bus. The location data of the buses can be derived from UTA web services and then mapped via Google Map API.<br>Tools**: Android, Java, JSON, Google API** |
| 8/2012 -9/2012 | **Geocoding Automation Based on Web Geocoding Services, Primary Developer**<br>Description: This project retrieved geographic coordinates of a large set of addresses in an automatic manner. Baidu geocoding API was utilized to get the geographic coordinates of the addresses.<br>Tools: **Java, Excel, XML, Baidu API** |
| 9/2010-11/2010 | **Chinese National Topographic Map Sheet Visualization System, Primary Developer**<br>Description: This project visualized the Chinese National Topographic Map Division boundaries.<br>Tools: **Visual C#, ArcEngine 9.3, ArcMap 9.3** |
| 2/2010-5/2010 | **Mapping Global Earthquake Risk, Primary Developer**<br>Description: This project developed a mapping module for an Earthquake Risk Prediction System. The objective of this module was to generate a global earthquake risk map based on the data from another module.<br>Tools: **Visual C#, ArcEngine 9.3** |
| 3/2007-6/2007 | **Vehicle Management System (course project) , Primary Developer**<br>Description: In this course project, a management information system (MIS) for vehicle management was designed and developed.<br>Tools: **Visual Basic, SQL Server 2000, Visio** |

## Computer Skills

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| Programming Languages | C/C++, C#, Java, Object-C, R, Python, Perl, HTML, Bash |
| Linux Skills | RedHat and Ubuntu Linux, Linux system programming |
| IDEs | Visual Studio, Eclipse, MyElicpse |
| Database Skills | SQL Server, DB2, MySQL, PostgreSQL & SQL |
| Software Development Tools | Build Forge, Microsoft Visio, SVN, GitHub, MS Safe Source |
| Software Development Kits | OpenGL, Qt, VTK, ILOG CPLEX, OpenMP, MPI |
| Professional Software | ArcGIS, ENVI, EARDAS, FarSite, FlamMap, NetLogo, Repast, GeoDa |

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| Mobile Development | Android, iOS, eMbedded Visual C++ |

## Language Skills

Mandarin (first language), English (fluent), German (functional)