

# YUEJIN DENG

State Key Laboratory of Information Engineering in Survey, Mapping  
and Remote Sensing (LIESMARS)

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## Education

### **Wuhan University**

Wuhan University, Wuhan, China

Graduated: July 2000

PH.D.

I was awarded a PH.D in Geodetic and Surveying Engineering after six years of study and research at the School of Geodesy and Geomatics, Wuhan University. Over the course of my education, I contributed to two China-Europe co-operation projects focused on developing the landslide monitoring and management systems in the Three Gorges area, China, and several GPS and GIS projects for the university, including designing the vehicle navigation system for Shenzhen city, the first Special Economic Zone of China. I also worked in the State Key Laboratory of Information Engineering in Surveying, Mapping and Remote Sensing, Wuhan University providing me with valuable professional experience in the GIS software development field.

### **Xi'an University Of Science And Technology**

Xi'an University of Science and Technology, Xi'an, China

Graduated: July 1994

Master Degree

From 1991 to 1994, I studied at the Department of Survey Engineering of Xi'an University of Science and Technology obtaining a Master`s degree in cadastral information management systems. I also had the opportunity to practice in the Mining Survey Engineering field.

### **EAST CHINA INSTITUTE OF TECHNOLOGY**

EAST CHINA INSTITUTE of TECHNOLOGY, Nanchang, China

Graduated: July 1991

Bachelor Degree

I completed a Bachelor's Degree in Survey Engineering in 1991.

## Employment History

### **July 2000 – Present: Assistant professor**

Company: LIESMARS, Wuhan University  
Wuhan, Hubei, China

From 2000 I have held the position of assistant professor granted by the State Key Laboratory for Information Engineering in Surveying, Mapping and Remote Sensing (LIESMARS), Wuhan university, and engaged myself in the Geographic Information Science (GIS) research and applications. My background in Geomatics, both as a surveyor and a GIS developer and manager, have allowed me to acquire experiences in this field that allow me to make valuable contributions to a wide range of GIS projects. My previous work on both GIS Grid Computing and Cloud Computing projects has given me considerable insight into the challenges and needs of a variety of GIS technologies, allowing me to offer highly tailored solutions to each GIS application. In addition, having the experience of processing monitoring data of deformation bodies, I have applied some algorithms, such as Neural Network and Wavelet Analysis, to GIS Data Mining research. Several technical papers about these algorithms and GIS have been published, including some standards of Geographical Information, for example, Geospatial Data Transfer Format (GB/T 17798-2007) and Geographic Information--Geography Markup Language (GB/T 23708-2009), which are widely used in China. I have some certifications for patents, and software products. I have supervised more than 20 graduate students at LIESMARS.

### **July 1997 – July 2000: Teaching Assistant**

Company: LIESMARS, Wuhan University  
Wuhan, Hubei, China

In 1997, I got my first job as a teaching assistant at LIESMARS, Wuhan University and started with my research on GIS software development. From then I participated in the research activities of GeoStar which is one of the three popular GIS software platforms in China. My experiences in developing GIS software and some other GIS projects made me better understand the essential concepts of GIS. As a teaching assistant I helped professor Jianya Gong who is now the director of LIESMARS and academican of the Chinese Academy of Sciences conduct the courses for graduate students at LIESMARS.

### **May 2009 – Present: Director of the Department of Science and Technology**

Company: Wuda Geoinformatics Co.,Ltd.  
Wuhan, Hubei, China

As a director, I led a team of 11 technicians to plan technologies applied to the company's products which are listed at <http://www.geostar.com.cn>. We

developed a prototype for CloudGIS based on the Cloud Computing technologies and the company's primary product -- GeoGlobe. Before that, we have finished some Geographic Information Service (GIS) projects, including the named Grid computing GIS project and its applications, sponsored by the Ministry of Science and Technology of the People's Republic of China (MOST) during 2008-2011. Now we are doing some new projects, such as the Smart City project for China, which is also supported by the MOST from 2013 to 2015, the project named Public Service Platform of Wuhan city based on CloudGIS and the Internet of Things (IOT) technologies, and so forth. My previous work on both large and small-scale projects has given me considerable insight into the challenges and needs of a variety of clients and projects. In addition, I have learned and honed valuable collaboration and team management skills that have allowed me to both manage and work constructively in group-based environments.

### **January 2000 – April 2009: Manager of Geospatial Data Analysis projects**

Company: Wuda Geoinformatics Co.,Ltd.  
Wuhan, Hubei, China

After my graduation and getting my PH.D from Wuhan University in 2000, I worked as a consultant at Wuda Geoinformatics Co.,Ltd and helped develop the GIS software platform, GeoStar while doing my research as an assistant professor at LIESMARS, Wuhan University. Starting in 2008, we transformed the architecture of GeoStar products from COM+ to SOA, and renamed GeoStar as GeoGlobe and included more advanced geographic information services technologies. In the company I worked on GIS data analysis projects and its applications to various fields, such as Land use and planning, urban design and population analysis, environmental protection, natural disaster prediction, and so forth. I acquired the skills for developing and using GIS software in different programming languages, such as C++, JAVA, and so on. As a manager of Geospatial Data Analysis projects I acquired an extensive knowledge base and skill-set in this field that allowed me to make valuable contributions to a wide range of GIS projects.

### **Recent research interests**

My recent research interests focus on two fields: GIS software development and GIS applications.

#### **GIS software development**

Geo-Spatial big data mining; Geoprocessing service Web based on Cloud Computing.

#### **GIS applications**

Resident behavior analysis and management; Urbanization; and

Transportation planning.

## Courses taught

2005-present, Course for graduates: Applications of Advanced Surveying and Mapping

## Students supervised

From the year of 2002, 26 graduate students supervised, including 22 graduated.

## Patents

Xi Yang, Yuejin Deng, Lui Liao, ect. A method and system of delivering and deploying atomic GIS cloud service unit. CN201410199417, 2014.

Jinsheng Huang, Yufeng Deng, Lui Hu, Mei Huang, Yuejin Deng, etc. A method for integrated modeling of Urban and Rural cadastral spatial data. CN201310594208, 2013.

Kaikai He, Li Zhang, Yaoyue Zhou, Dong Wei, Fei Cheng, Yuejin Deng, Aihong Song, etc. A system for 2D and 3D vector data rendering based on integrated engine. CN201310596598, 2013.

Juntao Huang, Yanfeng Wei, Jie Wu, Leilei Zhao, Lin Liu, Yong Liu, Hao Xiao, Yuejin Deng, Aihong Song, etc. A method of place names matching based on semantic recognition, CN201310596806, 2013.

Yuejin Deng, Aihong Song, Kaikai He, etc. Web map tile service aggregation method and system. CN201210404934, 2012.

Yuejin Deng, Aihong Song, Yanfeng Wei, etc. Organizing and row coding index method for multi-temporal tile dataset. CN201210405024, 2012.

Yuejin Deng, Juntao Huang, Aihong Song, etc. XML format-based geographic tile multi-pyramid temporal dataset generation method and device. CN201010254452, 2010.

## Chinese National Standards

ShaoJun Li, Yuejin Deng, Donglin Liu, etc. Geospatial Database Call-Level Interface, GB/T30320-2013, 2013

Jianya Gong, Wenxiu Gao, Maosheng Gong, Xinyan Zhu, Huayi Wu, Yuejin Deng, Wenwen Shi. Geographic Information-Web Feature Service, GB/T 30169-2013, 2013

Daosheng Du, Wenxiu Gao, Hongping Zhang, Yuejin Deng, Long Zhou. Geographic information—Positioning Services, GB/T 28589-2012, 2012.

Jianya Gong, Daosheng Du, Wenxiu Gao, Yuming Chen, Wenjie Jia, Yuejin Deng. Geographic information—Web map server interface, GB/T 25597-2010, 2010.

Feng Xu, Maosheng Gong, Wenwen Shi, Yuan Li, Na Chang, Zhiliang Wang, Xiaolin Li, Xu Zhou, Yuejin Deng. Geographic information — Metadata — XML schema implementation, GB/Z 24357-2009, 2009.

Jianya Gong, Yuejin Deng, Shuliang Zhang, Wenxiu Gao, Daosheng Du. Geographic information—Geography Markup Language (GML), GB/T 23708-2009, 2009.

QinYuan Li, Tao Li, Lihong Shi, Jiping Liu, Yuejin Deng, Daosheng Du, Jianya Gong. Geographic information—Spatial schema, GB/T 23707-2009, 2009.

Jianya Gong, Yuejin Deng, Juntao Huang, Xuenian Xiao, Kuan Zhang. Geospatial data transfer format, GB/T 17798-2007, 2007.

## Articles (Local)

ZHANG Yehong, ZHANG Liming, DENG Yuejin, SHANG Dongfang. The Technical Research for Massive Messages Distribution and Illustration in PGIS. GEOMATICS WORLD, 2011, (6):22-25.

DENG Yuejin, LEI Zhen, REN Fangyong. Design and Implementation of National Fundamental Geographic Information Database Management System based on GeoStar. GEOMATICS&SPATIAL INFORMATION TECHNOLOGY, 2010, 33(6):1-3.

CHEN Yuan, DENG Yuejin, JI Jianpei. Realization of National Fundamental Geographic Data Sharing Based on CDSDTF. GEOSPATIAL INFORMATION. 2010, 8(5):13-15.

LEI Zhen, DENG Yuejin, JI Jianpei. Analysis of Spatial Data Semantic Conversion Model Based on GDC. GEOSPATIAL INFORMATION. 2010,

8(5):27-30.

YU Xu, HE Jianbang, WU Pingsheng, DENG Yuejin, CAO Yanrong, MA Liguang. Research on Geographic Information Sharing Environment. Bulletin of Surveying and Mapping, 2010, (6):20-22.

## Book Chapters

ZhenLu Zhang, Quanyi Huang, Hongyan Wen, Yuejin Deng, etc. Deformation Monitoring Analysis and Prediction for Engineering Construction, Surveying and Mapping Press, 2007.

## Conference presentations

Yuejin Deng, Zhongri Tang, Yunhua Chen, Min Cai. INFORMATION INTEGRATION BASED ON OPEN GEOSPATIAL DATABASE CONNECTIVITY SPECIFICATION. A special joint symposium of ISPRS Technical Commission IV & AutoCarto in conjunction with ASPRS/CaGIS 2010 Fall Specialty Conference, 2011.

Min Cai, Yuejin Deng, Zhongri Tang. An Optimal spatio-temporal path algorithm for urban emergency rescue. A special joint symposium of ISPRS Technical Commission IV & AutoCarto in conjunction with ASPRS/CaGIS 2010 Fall Specialty Conference, 2011.

Deng Yuejin, Wu Qiong. Research on the harvest and cascade of catalogue service in GeoGlobe service platform. 18th International Conference on Geoinformatics, Geoinformatics 2010.

Yang Xiaoqiang, Deng Yuejin. Exploration of cloud computing technologies for geographic information services. 18th International Conference on Geoinformatics, Geoinformatics 2010.

Chen, Yuan, Deng, Yuejin. Realization of interoperation of geographical information in GeoGlobe service platform, 18th International Conference on Geoinformatics, Geoinformatics 2010.

Deng Yuejin, Cai Jingjing, Yan Shijiang. LAND-USE ANALYSIS PERFORMANCE IN PRECISION AGRICULTURE: EVOLUTION ALGORITHM OF DATA MINING. The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences. 2008, Vol. XXXVII. Part B8. 993~998.

Yuejin Deng, Yushu Cheng, and Lianwen Jing. The future application of GML database in GIS. Proceedings of SPIE - The International Society for Optical Engineering, v 6421, 2006.

## Awards

Chinese Geographic Information Technology Progress Award, “Grid Computing and Information Platform of Chinese Geology Investigation”, 2013.

Chinese Geographic Information Technology Progress Award, “The Framework of Chinese Geographic Information Standards”, 2011,