



# MINH HIEU NGUYEN

## Researcher and Developer

### AREAS OF EXPERTISE

Mapping Science;  
Big (Spatial) Data Analysis;  
Software Development;  
IT Project Management;

Developer (Java, NodeJs,  
.Net, Python, Kotlin) for App  
(Android), Web (Full), and  
Tool (On demand)

GIS Applications (QGIS,  
ArcGIS, WebGIS, PostGIS)

DBMS (PostgreSQL,  
MySQL, SQLServer,  
SQLite, NoSQL)

Server Administration  
(Windows, Linux)

Distributed Computing  
(Hadoop Ecosystem)

### PERSONAL SKILLS

- ❖ Active
- ❖ Adaptable
- ❖ Academic

### PERSONAL INFORMATION

🏠 No 20/32, Le Van Hien  
Street, Tu Liem district,  
Hanoi city

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✉ [hieuintelvn@gmail.com](mailto:hieuintelvn@gmail.com)

👤 07-Dec-1989, Vietnamese

### WORK EXPERIENCE

- **School of Civil & Environmental Engineering, Yonsei University**  
August 2016 - Now  
Ph.D. Candidate at Spatial Computing for Sustainable Infrastructure Lab

Research GIS, Spatial Data Analysis, Real-Time Location Service, Data Visualization, and Distributed Computation.

- **Viet Nam Academy of Science and Technology (VAST) Space Technology Institute (STI)**  
January 2014 - August 2016  
Researcher at Dept. Remote Sensing Technology, GIS & GPS

Research and develop Web applications for territorial management

- **Eposi Technology Development Joint Stock Company**  
June 2012 - December 2013  
GIS Developer at Dept. of Mapping & GIS

Develop tools and software for crowdsourcing geospatial data

- **Hoa Binh Construction Group Joint Stock Company**  
January 2012 - June 2012  
Surveyor at Mipec Riverside Construction, Long Bien, Hanoi

Perform positioning and monitoring structure deformation in construction

### EDUCATION

✓ Engineer's degree  
*University of Mining and Geology*      Surveying and Mapping  
2007 - 2012

✓ Master's degree  
*University of Mining and Geology*      GIS and Environmental  
2014 - 2015

PhD Candidate  
*Yonsei University, Korea*      Civil and Environmental  
2016 - 2022 (expected)

## PUBLICATIONS

No.	Title	Author	Proceeding/Journal	Year
1.	Demonstration of a WebGIS system for territorial management in Cao Bang province	First	GIS Conference 2014, Can Tho, Vietnam	2014
2.	Development of a WebGIS system for territorial management in Cao Bang province	First	Journal of Resources and Environment. No 7, April, 2015	2015
3.	Spectral discrimination of common mangrove species in Ca Mau peninsula, Vietnam: Using a large sample set of hyperspectral in-situ canopy data	Co-author	GIS Conference 2015, Thai Nguyen, Vietnam	2015
4.	Web-based crop information system for South Korea using time-series data from remote sensing	First	In Proceedings of the International Symposium on Remote Sensing 2017, Nagoya, Japan	2017
5.	Spatio-temporal factor analysis of characterizing mass protest events using Taxi trajectory in Seoul, Korea	Co-author	Proceedings of the 1st ACM SIGSPATIAL Workshop on Analytics for Local Events and News, ACM, Los Angeles, USA	2017
6.	A benchmark test of spatial big data processing tools and a MapReduce application	First	Korean Society of Surveying, Geodesy, Photogrammetry and Cartography, (2017): 405-414.	2017
7.	The design of Web-based crop information system using open-source framework and remote sensing data	First	Korean Journal of Remote Sensing, (2017): 751-762	2017
8.	Implementation of floating population data for smart cities: A case study in Songdo Incheon South Korea	Co-author	Proceedings of the 2nd ACM SIGSPATIAL Workshop on Prediction of Human Mobility. ACM, Seattle, USA	2018
9.	A fast solution for publishing web map service from massive remote sensing data	First	Journal of Science: Natural Sciences and Technology (2018), ISSN: 1859-3100 (Vietnam), 15(11), 193-200	2018
10.	Development of a visualization tool for student characterization using mobility Data	First	In Companion Proceedings of the 9th International Conference on Learning Analytics & Knowledge (pp. 175-176). ACM. Tempe, Arizona, USA	2019
11.	Development of massive Point Cloud Data geoprocessing framework for construction site monitoring	First	In Computing in Civil Engineering 2019: Data, Sensing, and Analytics (pp. 185-192). ASCE. Atlanta, Georgia	2019
12.	Massive Point Cloud Processing on Hadoop: challenges and proposed solution	First	In Proceedings of the 40th Asian Conference on Remote Sensing. Daejeon, Korea.	2019
13.	A demonstration of B-EagleV: Visualizing massive point cloud directly from HDFS	First	In 2019 IEEE International Conference on Big Data (Big Data) (pp. 4121-4124). IEEE. Los Angeles, CA, USA	2019

## PROJECTS

No.	Title	Period	Role	Organization	Progress	Link
1.	Mipec Riverside Construction	2012-2012	Surveyor	Military Petrochemical JSC	Done	<a href="#">Click</a>
2.	Development of information systems for management and monitoring of forest cover in the Central Highlands using remote sensing technology	2012-2015	Developer	Vietnam Academy of Science and Technology (VAST)	Done	<a href="#">Click</a>
3.	Development of a reflection spectrum library for the investigation and mapping of forest using satellite images	2014-2015	Developer	Vietnam Academy of Science and Technology (VAST)	Done	
4.	Development of a WebGIS system for territorial management in Cao Bang province	2014-2015	Main Developer	Department of Science and Technology of Cao Bang province	Done	<a href="#">Click</a>
5.	Development of a WebGIS system for crop monitoring in Korea using massive remote sensing data.	2016-2018	Main Developer	SCSI Lab, Yonsei University, Seoul, Korea	Done	<a href="#">Click</a>
6.	Development of a WebGIS system for crop monitoring in Uganda using massive remote sensing data	2018-2019	Main Developer	Vietnam National University of Agriculture	Done	
7.	Development of a robust framework for processing massive point cloud, BIM, and sphere images in the construction industry	2017-Now	Main Developer	SCSI Lab, Yonsei University, Seoul, Korea	Ongoing	<a href="#">Click</a> <a href="#">Click</a> <a href="#">Click</a> <a href="#">Click</a>
8.	Development a web-based prototype for management and investigation of apartment deterioration.	2018-2019	Technical Consultant	Uwon Structural Inspection Group, Wonju, Korea	Done	<a href="#">Click</a>
9.	Development of MMOE (Monitoring - Management - Ocean - Environment) system for monitoring and warning of the marine environment from Khanh Hoa to Ca Mau	2019-2020	Technical Consultant	HCM City Institute of Resources Geography	Done	<a href="#">Click</a>
10.	Development of land information system (LIS) for real estate business in DakLak, Vietnam	2020-Now	Project Manager	Thongtin.land JSC, Vietnam	Done/ Maintaining stage	<a href="#">Click</a> <a href="#">Click</a>
11.	Research and Development of Geo – Solutions.	2014-Now	Founder and Developer	<a href="#">GeoTechVN</a>	Ongoing	<a href="#">Click</a> <a href="#">Click</a> <a href="#">Click</a>

Thank you for reading!