

## Education

### University of Southern California (USC)

Aug 2011 - Current

Ph.D Candidate in Computer Science. GPA 3.53. Advisor: Prof. [Cyrus Shahabi](#).Thesis: *Task Assignment with Rigorous Privacy Protection in Spatial Crowdsourcing (SC)*Contributed to projects funded by NSF, Google, Microsoft, NGC: [SC](#), [MediaQ](#), [iRain](#), [iCampus](#).

### Hanoi University of Science and Technology (HUST)

Sep 2005 - Jul 2010

B.S in Computer Science. GPA 8.02.

## Technical Skills

Languages Python, Java, C/C++ STL, Android, iOS, PHP, HTML, CSS, JavaScript  
Databases PostgreSQL, Oracle, Teradata and NoSQLs, e.g., Redis, Mongo, Neo4j  
Data Tools NumPy, Matplotlib, NLTK, Lucene, Solr, ElasticSearch, EC2, Azure, CodeIgniter  
Science Tools Word2Vec, Doc2Vec, t-SNE, LDA, LSI, k-means, DBSCAN, SVM, Logit

## Industry Experience

### Research Assistant

### Integrated Media System Center, USC

Aug 2011 - Present

**Spatial Crowdsourcing (SC):** Developing new privacy-preserving techniques for efficient task assignment in spatial crowdsourcing/crowdsensing, funded by two NSF grants: [GeoCrowd](#), [BDD](#). The SC technologies were used by government agencies (NGA) and many institutions (e.g., UCI, LMU, HKUST). Check our apps: [MediaQ](#) for managing crowdsourced data (pictures, videos) and [iRain](#) for crowdsourcing weather information. MediaQ on [Digital Trends](#), [USC Magazine](#), [NSF News](#), [iRain on UNESCO](#), [US Army](#), [LA Times](#).

**Time-series Mining:** visualized high-dimensional and multivariate time-series data (e.g, medical data).

**Tweet Mining:** classified disaster-related tweets to enhance situational awareness during disaster response.

### Software Engineering Intern

### Teradata Corporation

Summer 2014 and Summer 2012

**Large Join Query Optimization:** developed genetic algorithms for LJQO in shared-nothing architecture, which reduced the estimated cost a few times while the overhead is minimal. More on [patent](#).

**Selectivity Estimation:** developed one/multidimensional histograms that advance the state-of-the-art to improve accuracy of database statistics. A patent filed, more on [paper](#).

### R&D Engineer

### VNG Corporation

Jun 2010 - Jul 2011

**Key-Value Store:** developed distributed key-value store from scratch that favors availability with following features: persistent storage, memory caching, high scalability, and fault-tolerance, served as backends for 1) 2M+ online game users and 2) 6M+ monthly active social network users (news feed ranking). More on [report](#).

**Social Faceted Search:** developed instant search engine that helps users to explore their networks, such as their friends, friends of friends, nearby friends, school friends, and friends with common interests.

### Software Developer

### Bkav Corporation

Feb 2008 - May 2010

developed mobile apps (e.g, games, newsreader) on devices with constrained resources (CLDC)

## Research Experience

### Research Assistant

### Information Lab, USC

Aug 2011 - Present

Working on *data privacy*, *crowdsourcing* and *geospatial data management*, lead author in 10+ and co-author in 10+ peer-reviewed papers in highly prestigious conferences and journals, e.g, VLDB, ICDE, PerCom, CIKM, SIGSPATIAL, TSAS, TMC and regularly serves as a reviewer of those venues. More on [my page](#).

## Additional Experience and Awards

Teaching Assistant, CSCI 587 (Fall 2012, 2014) and CSCI 101 (Fall 2013) at USC

Publicity chair of GeoRich 2017, PC Member of CASPer 2017, CROWDBENCH 2016

Reviewer of TKDE, TDSC 2016, IPL 2015

External Reviewer of VLDB 2016, 2015, TKDE 2015, SIGMOD 2015, ICDE 2015, CIKM 2014

Student Travel Awards and Volunteer of SIGSPATIAL'16, IEEE Big Data'15, ICDE'15, DASFAA'15, CIKM'13

Microsoft Azure Research Grant, 2014

Finalist, Qualcomm Innovation Fellowship 2015 (with George Constantinou)

Vietnam Education Foundation Fellowship 2011

Ministry of Education and Training Scholarship 2005-2010 for excellent students

## Others

Published mobile apps on Apple Store/Google Play: MediaQ, iRain, MiddleboxTester and BillShare

My Hobbies are surfing, hiking, biking, travel to remote places, e.g., national parks.