Hien To

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Education

University of Southern California (USC)   *Aug 2011 - Present*
4th year PhD, Computer Science.
expected date of graduation: Summer 2016

Hanoi University of Science and Technology (HUST)   *Sep 2005 - Jul 2010*
B.S in Computer Science.

Awards

Prof. Ram Kumar Travel Fellowships for ICDE 2015,	*Apr 2015*
Finalist, Qualcomm Innovation Fellowship 2015,	*Mar 2015*
Microsoft Azure Research Grant ($40K worth of grant)	*May 2014*
Travel Grant & Volunteer at CIKM'13 Conference	*Nov 2013*
VEF Fellowship ($52K in two years)	*Aug 2011*
Certificate of Merit for Excellent Graduation Grade	*Jul 2010*
Ministry of Education and Training Scholarship for Excellent Students	*2005 - 2010*

Publications

[1] **Hien To**, Luan Tran, Cyrus Shahabi. Real-Time Task Assignment in Spatial Crowdsourcing. (submitted to CIKM'15)

[2] **Hien To**, Gabriel Ghinita, Cyrus Shahabi. Differentially Private Worker Location Privacy in Spatial Crowdsourcing. (submitted to TDSC).

[3] **Hien To**, Gabriel Ghinita, Cyrus Shahabi. PrivGeoCrowd: A Toolbox for Studying Private Spatial Crowdsourcing (demo). In Proceedings of 32st International Conference on Data Engineering (ICDE 2015)

[4] **Hien To**, Leyla Kazemi, Cyrus Shahabi. *A Server-Assigned Crowdsourcing Framework*. ACM Transactions on Spatial Algorithms and Systems (TSAS 2015).

[5] **Hien To**, Gabriel Ghinita, Cyrus Shahabi. A Framework for Protecting Worker Location Privacy in Spatial Crowdsourcing. In proceedings of the 40th International Conference on Very Large Data Bases (VLDB 2014)

[6] Afsin Akdogan, **Hien To**, Seon Ho Kim, and Cyrus Shahabi. A Benchmark to Evaluate Mobile Video Upload to Cloud Infrastructures. In Proceedings of the fifth workshop on Big data benchmarks, Performance optimization, and Emerging hardware (BPOE 2014)

[7] **Hien To**, Kuorong Chiang, Cyrus Shahabi. *Entropy-based Histograms for Selectivity Estimation*, ACM International Conference on Information and Knowledge Management (CIKM 2013).

[8] Hung Dang, **Hien To** and Tuan Nguyen. *Maximum Complex Task Assignment: Enabling Crowdsourcing Spatial Complex Task*, the 15th International Conference on Information Integration and Web-based Applications & Services (iiWAS2013).

Research Experience

Spatial Crowdsourcing Research   **USC**   *Aug 2011 - Present*
Worker-task assignment in spatial crowdsourcing, particularly focus on online matching and worker privacy issues

Grid Research   **High Performance Computing Center @ HUST**   *May 2009 - Jun 2010*
Developed datagrid-based interscholastic system for document plagiarism detection using LDA technique

Industry Experience

Media Data Management Projects @ Infolab   **USC**   *Aug 2011 - Present*
Developed MediaQ, a novel online media management framework to collect, organize, share, search, and trade user-generated mobile images and public videos. Link: http://mediaq.usc.edu/

Developed iCampus, an app that provides location-based services for students and integrates multiple sources of data, including public data, user-generated data and USC's private data. Link: http://icampus.usc.edu/

Networking & Data Science Projects   **USC**   *Aug 2011 - Present*

Analyzed crowdsourced measurement data to identify proxy policies (e.g., middlebox existence, caching, delay handshaking, redirection and content rewriting) of large cellular networks, including 4 large U.S carriers.

Retrieved twitter's (trending) topics and conducted parallel k-means clustering analysis of the data using Apache Mahout on Amazon EMR

Software Engineer Intern, Query Optimization   **Teradata Corporation**   *Summer 2014*

Large Join Query Optimization: developed genetic algorithm for LJQO in shared-nothing architecture

Software Architect, Social Marketing Platform   **Viet Phu Corporation** *Sep 2012 - Sep 2013*

Developed NextGiving, a charitable social marketing platform to provide efficient way for charities organizations to receive donations from anyone via social network

Software Engineer Intern, Query Optimization   **Teradata Corporation**   *Summer 2012*

Selectivity Estimation: developed one/multidimensional histograms for selectivity estimation

R&D Back End Engineer   **VNG Corporation**   *Jun 2010 - Jul 2011*

Developed ZStore, a distributed key-value storage from scratch that assures great availability with the following features: persistent storage, memory caching, high scalability, and fault-tolerance (1M+ active game users)

Developed Feed Ranking backend that provides social network users (6M+ active users in Jan 2011) with personalized ranked feeds to overcome information overload

Developed instant Social Faceted Search engine that helps users to explore their network, such as their friends, friends of friends, nearby friends, school friends, and friends with common interests

Software Intern, Mobile App Team   **Vietnam Mobile Gateway**   *Feb 2008 - May 2009*

Developed games for resource-constrained devices (Connected Limited Device Configuration)

Teaching Experience

Teaching Assistant, CSCI 587 - Geospatial Information Management, USC   *Fall 2014*

Teaching Assistant, CSCI 101 - Fundamentals of Computer Programming, USC   *Fall 2013*

Teaching Assistant, CSCI 587 - Geospatial Information Management, USC   *Fall 2012*

Technical Skills

Programming Languages	Java, C/C++ STL, Python, Android, iOS, Ruby, PHP, JSP, HTML, CSS, JavaScript
Databases	PostgreSQL, MySQL, MSSQL, Oracle, Redis, CouchDB, Neo4j, BerkeleyDB, DB2
Technologies	Distributed Systems, Web Services, NoSQL, Amazon EC2, Microsoft Azure, Lucene, Solr, ElasticSearch, Struts, Hibernate, IBM InfoSphere, Google-Facebook-Twitter APIs

Certifications

Windows Azure for Research Training   *Jan. 2014*

Japan Fundamental Information Technology Skill Standards   *Feb. 2010*

BM Certified Solution Designer - Object Oriented Analysis & Design   *Dec. 2009*

IBM Certified Database Associate - DB2 9 Fundamentals   *Dec. 2008*

Hobbies

Surfing, swimming, hiking, biking, travel to remote places, e.g., national parks

Conquer Fansipan the highest mountain in Indochina   *Mar. 2011*

Lead a team of 3 students to developed a weather crowdsourcing app, **iRain** (iOS & Android)   *Aug. 2014*

Work in a team of 5 students to developed a bill sharing app, **BillShare** (iOS & Android)   *May. 2014*

Publish MiddleboxTester app on Google Play   *Dec. 2014*