

# Curriculum Vitae

Kien Duy Nguyen

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## CONTACT INFORMATION

Department of Computer Science  
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## RESEARCH INTERESTS

Location privacy, spatial-temporal data mining, data marketplaces

## EDUCATION

**University of Southern California** 2015 - present  
Viterbi School of Engineering, Department of Computer Science Los Angeles, CA  
*Doctor of Philosophy*  
GPA: 3.87

**Hanoi University of Science and Technology** 2008 - 2013  
School of Information and Communication Technology Hanoi, Vietnam  
Center for Training of Excellent Students, Talent Engineer Program  
*Degree of Engineer*

## PUBLICATIONS

“Geofence Decision Theory for Sporadic Location Measurements”, Kien Nguyen, John Krumm, *(submitted)*

“Spatial Privacy Pricing: The Interplay between Privacy, Utility and Price in Geo-Marketplaces”, Kien Nguyen, John Krumm, Cyrus Shahabi, *28th ACM International Conference on Advances in Geographic Information Systems (SIGSPATIAL’20)*, Seattle, WA, 2020

“A secure location-based alert system with tunable privacy-performance trade-off”, Gabriel Ghinita, Kien Nguyen, Mihai Maruseac, Cyrus Shahabi, *GeoInformatica (2020)*

“A Privacy-Preserving, Accountable and Spam-Resilient Geo-Marketplace”, Kien Nguyen, Gabriel Ghinita, Muhammad Naveed, Cyrus Shahabi, *27th ACM International Conference on Advances in Geographic Information Systems (SIGSPATIAL’19)*, Chicago, IL, 2019

“Artificial Intelligence for Improving Access to Sexual Health Necessities for Youth Experiencing Homelessness“, A. Rahmattalabi, L. Onasch-Vera, O. Roybal, K. Nguyen, L. Tran, R. Petering, E. Rice, M. Tambe, In Tambe, M., & Rice, E. (Eds.), *Artificial Intelligence and Social Work*, Artificial Intelligence for Social Good, chapter, Cambridge: Cambridge University Press, 2018

“Los Angeles Metro Bus Data Analysis Using GPS Trajectory and Schedule Data (Demo Paper)”, Kien Nguyen, Jingyun Yang, Yijun Lin, Jianfa Lin, Yao-Yi Chiang, Cyrus Shahabi, *26th ACM International Conference on Advances in Geographic Information Systems (SIGSPATIAL’18)*, Seattle, WA, 2018

“Differentially Private Publication of Location Entropy”, Hien To\*, Kien Nguyen\*, Cyrus Shahabi, *24th ACM International Conference on Advances in Geographic Information Systems (SIGSPATIAL’16)*, San Francisco, CA, 2016

“Exploiting Direct and Indirect Information for Friend Suggestion in ZingMe”, Kien Nguyen, Tuan Minh, Quang Nguyen and Thanh Nguyen, *NIPS’13 workshop on Frontiers of Network Analysis: Methods, Models, and Applications*, Lake Tahoe, NV, 2013

## WORKING EXPERIENCE

- University of Southern California, CSI-Cancer Institute** 2018 - 2020  
*Research Assistant* Los Angeles, CA  
Designed and implemented back-end and front-end systems for cancer-related clinical trials:  
- PrecisionPS (former ATOM-HP): utilizes patients' in-clinic mobility captured by Microsoft Kinect and daily activities captured by wearable devices to measure their health status  
- SCORE: COVID-19 patients' symptoms and location tracking
- Facebook Inc., Applied Privacy Technology** 2020  
*Software Engineer Intern* Menlo Park, CA  
Developed algorithms for a new location privacy definition
- Microsoft Corporation, Microsoft Research AI** 2019  
*Research Intern* Redmond, WA  
Developed new methodologies for efficient and accurate mobile geofences applications with energy consumption consideration
- University of Southern California, Integrated Media Systems Center** 2017 - 2018  
*Research Assistant* Los Angeles, CA  
Analyze Los Angeles Metro bus data using GPS trajectory and schedule data to gain better understanding of bus performance
- Archer Ltd** 2015  
*Software Architect* Hanoi, Vietnam  
Designed architecture and managed a team to build a large-scale system that distributed relevant advertisements to five million of mobile users
- VNG Corporation** 2012 - 2015  
*Software Engineer* Hanoi, Vietnam  
Implemented recommender systems to recommend friend, news, group, blog to 20 million users of ZingMe, a social network in Vietnam.

## TEACHING EXPERIENCE

- University of Southern California**  
Introduction to Software Development, Teaching Assistant 2015 - 2017  
Machine Learning for Data Informatics, Teaching Assistant 2015

## HONORS AND AWARDS

- NSF Student Travel Awards 2016, 2018, 2019  
Excellent Student Scholarships (Hanoi University of Science and Technology) 2013, 2014  
The Second Prize in Vietnam Olympiad in Informatics 2008  
The First Prize in Vietnam Olympiad in Informatics 2007  
Odon Vallet Scholarship 2007

## TECHNICAL SKILLS

Geospatial Data Management, Statistical Data Analysis, Experimental Design, Quantitative Analysis, Differential Privacy, Searchable encryption, Digital commitment, Blockchain  
Python, Java , C/C++ , Matlab, SQL , Objective-C, Swift