# Ritesh Ahuja

Personal Nationality Indian

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RESEARCH INTERESTS Statistical Inference, Geo-Social Networks, Spatial/Temporal data management, Location

Privacy, Differential Privacy, Data Modelling

EDUCATION University of Southern California, U.S.A.

Aug 2016-present

Ph.D. in Computer Science, CGA 3.96/4.0 under supervision of Prof. Cyrus Shahabi

Hong Kong University of Science and Technology, HKSAR. Sept. 2013–Jun. 2016 M.Phil. in Computer Science and Engineering, CGA 3.9/4.0, graduated under the supervision of Prof. Dimitris Papadias

**Hong Kong University of Science and Technology**, HKSAR. *Sept. 2010–Aug. 2013* Bachelor of Engineering in Computer Science, CGA 3.6, graduated with *First Class Honors* 

University of California Santa Barbara, California, U.S.A. January–June 2012 Exchange student in EAP program.

### **Publications**

Ritesh Ahuja, Gabriel Ghinita, Cyrus Shahabi.

"Differentially-Private Next-Location Prediction with Neural Networks" ACM International Conference on Extending Database Technology (EDBT), 2020.

Mingxuan Yue, Yaguang Li, Haoze Yang, **Ritesh Ahuja**, Yao-Yi Chiang, Cyrus Shahabi . "DETECT: Deep Trajectory Clustering for Mobility-Behavior Analysis" IEEE BigData, 2019.

Ritesh Ahuja, Gabriel Ghinita, Cyrus Shahabi.

"A Utility-Preserving Technique for Protecting Location Data with Geo-Indistinguishability" ACM International Conference on Extending Database Technology (EDBT), 2019.

Ritesh Ahuja, Nithin Krishna, Gabriel Ghinita, Cyrus Shahabi.

"Preserving Co-location privacy against Inference Attacks." IEEE International Conference on Computer Communications and Networks, 2019.

Ritesh Ahuja, Nikos Armenatzoglou, Dimitris Papadias.

"Geo-Social Ranking: Functions and Query Processing."

Very Large Data Bases Journal (VLDBJ), 2015.

Ritesh Ahuja, Nikos Armenatzoglou, Dimitris Papadias and George Fakas.

"Geo-Social Keyword Search." Proceedings of the International Symposium on Spatial and Temporal Databases (SSTD), Hong Kong, 2015.

## Working Papers

Ritesh Ahuja, Gabriel Ghinita, Cyrus Shahabi.

Local Geo-Indistinguishability for Location-Recommendation.

Ritesh Ahuja, Sepanta Zeighami, Gabriel Ghinita, Cyrus Shahabi.

 $(\epsilon, \delta)$ -geoin distinguishability and the Sampled Gaussian Mechanism for continuous location release.

Ritesh Ahuja, Sepanta Zeighami, Cyrus Shahabi.

Differentially-Private Clipping strategies for a converging SGD on neural networks.

#### EXPERIENCE

### Ludwig-Maximilians-Universitt Mnchen, Munich, Germany.

Summer 2015

Department of Computer Science, Database Systems Group

- Worked as an visiting scholar on geo-spatial data analytics related projects.
- Supervisor: Prof. Dr. Matthias Renz

## Teaching Assistant at HKUST, U.S.C.

Spring 2015-present

Department of Computer Science

• Worked as teaching assistant for graduate and postgraduate courses.

### Bharti Airtel Limited, Gurgaon, India.

Summer 2011

Department of Information Technology

• Worked as an intern on database design and efficient text-based content search.

## Professional Activities

• External reviewer for ICDE, SIGMOD, PVLDB, VLDBJ, ICDE, SIGSPATIAL, SSTD, KAIS, INS, IJGIS, TIFS

## AWARDS AND SCHOLARSHIPS

## Viterbi-Graduate School PhD Fellowship

2016-present

postgraduate scholarship from University of Southern California.

#### HKUST Dean's List Award

2012-14

for academic excellence in undergraduate and postgraduate coursework.

# **HKUST Distinguished Final Year Project Award**

August 2013

awarded to the top 5 projects in the final year of degree.

#### TECHNICAL SKILLS

- Preferred Language: C, C++. Working Knowledge: Java, Python
- Coursework/projects in Databases Design (SQL), Webpage design (HTML, PHP, JavaScript & AJAX.)
- Others: Machine learning (PyTorch, Gensim) and Deep Learning (Tensorflow, Keras)

### References

Available upon request from:

- Professor Cyrus Shahabi http://infolab.usc.edu/Shahabi/
- Professor Gabriel Ghinita https://www.cs.umb.edu/~gghinita/
- Professor Dimitris Papadias http://www.cse.ust.hk/faculty/dimitris/
- Dr. Nikos Armenatzoglou http://home.cse.ust.hk/~nikos/