

PUBLICATIONS **Referred Journal Papers**

- [1] Patterns and Anomalies in k-Cores of Real-world Graphs with Applications
Kijung Shin, Tina Eliassi-Rad, and Christos Faloutsos
KAIS 2018 - Knowledge and Information Systems
(Special Issue on Best Papers from ICDM 2016)
- [2] Fast, Accurate and Flexible Algorithms for Dense Subtensor Mining
Kijung Shin, Bryan Hooi, and Christos Faloutsos
TKDD 2018 - ACM Transactions on Knowledge Discovery from Data
- [3] Graph-Based Fraud Detection in the Face of Camouflage
Bryan Hooi, Kijung Shin, Hyun Ah Song, Alex Beutel, Neil Shah, and Christos Faloutsos
TKDD 2017 - ACM Transactions on Knowledge Discovery from Data
(Special Issue on the Best Papers from KDD 2016)
- [4] Fully Scalable Methods for Distributed Tensor Factorization
Kijung Shin, Lee Sael, and U Kang
TKDE 2017 - IEEE Transactions on Knowledge and Data Engineering
- [5] Random Walk with Restart on Large Graphs Using Block Elimination
Jinhong Jung, Kijung Shin, Lee Sael, and U Kang
TODS 2016 - ACM Transactions on Database Systems

Referred Conference Papers

- [6] Tri-Fly: Distributed Estimation of Global and Local Triangle Counts in Graph Streams
Kijung Shin, Mohammad Hammoud, Euiwoong Lee, Jinoh Oh, and Christos Faloutsos
PAKDD 2018 (To Appear)
- [7] Discovering Progression Stages in Trillion-Scale Behavior Logs
Kijung Shin, Mahdi Shafiei, Myunghwan Kim, Aastha Jain, and Hema Raghavan
WWW 2018 (Industry Track)
- [8] WRS: Waiting Room Sampling for Accurate Triangle Counting in Real Graph Streams
Kijung Shin
ICDM 2017
- [9] ZooRank: Ranking Suspicious Entities in Time-Evolving Tensors
Hemank Lamba, Bryan Hooi, Kijung Shin, Christos Faloutsos, and Jürgen Pfeffer
ECML/PKDD 2017
- [10] DenseAlert: Incremental Dense-Subtensor Detection in Tensor Streams
Kijung Shin, Bryan Hooi, Jisu Kim, and Christos Faloutsos
KDD 2017
- [11] Why You Should Charge Your Friends for Borrowing Your Stuff
Kijung Shin, Euiwoong Lee, Dhivya Eswaran, and Ariel D. Procaccia
IJCAI 2017 (*Featured in New Scientist*)
- [12] D-Cube: Dense-Block Detection in Terabyte-Scale Tensors
Kijung Shin, Bryan Hooi, Jisu Kim, and Christos Faloutsos
WSDM 2017 (*SIGIR Student Travel Grant*)
- [13] S-HOT: Scalable High-Order Tucker Decomposition
Jinoh Oh, Kijung Shin, Evangelos E. Papalexakis, Christos Faloutsos, and Hwanjo Yu
WSDM 2017

- [14] CoreScope: Graph Mining Using k-Core Analysis - Patterns, Anomalies and Algorithms
Kijung Shin, Tina Eliassi-Rad, and Christos Faloutsos
ICDM 2016 (*Invited to KAIS as One among Best Papers in ICDM 2016*)
- [15] M-Zoom: Fast Dense-Block Detection in Tensors with Quality Guarantees
Kijung Shin, Bryan Hooi, and Christos Faloutsos
ECML/PKDD 2016
- [16] FRAUDAR: Bounding Graph Fraud in the Face of Camouflage
Bryan Hooi, Hyun Ah Song, Alex Beutel, Neil Shah, Kijung Shin, and Christos Faloutsos
KDD 2016 (*SIGKDD Best Research Paper Award*)
- [17] BEAR: Block Elimination Approach for Random Walk with Restart on Large Graphs
Kijung Shin, Jinhong Jung, Lee Sael, and U Kang
SIGMOD 2015 (*Samsung Humantech Paper Award, SIGMOD Student Travel Award*)
- [18] Distributed Methods for High-dimensional and Large-scale Tensor Factorization
Kijung Shin and U Kang
ICDM 2014 (*ICDM Student Travel Award*)
- [19] Data/Feature Distributed Stochastic Coordinate Descent for Logistic Regression
Dongyeop Kang, Woosang Lim, Kijung Shin, Lee Sael, and U Kang
CIKM 2014

Other Papers

- [20] Mining Large Dynamic Graphs and Tensors: Thesis Proposal
Kijung Shin
Thesis Proposal, Carnegie Mellon University, March 2018.
- [21] Patterns and Anomalies in k-Cores of Real-world Networks
Kijung Shin, Tina Eliassi-Rad, and Christos Faloutsos
NetSci 2017 (Abstract)
- [22] Incorporating Side Information in Tensor Completion
{Hemank Lamba*, Vaishnavh Nagarajan*, Kijung Shin*, and Naji Shajarisales*}
WWW Companion 2016
- [23] Scalable Methods for Random Walk with Restart and Tensor Factorization
Kijung Shin
Bachelor's Thesis, Seoul National University, May 2015. (*Best Thesis Award*)

RELEASED **NetMiner** (<http://www.netminer.com>) contribution: Jan 2011 to Dec 2013
SOFTWARE Commercial social network analysis software

Dolphin (<https://github.com/cmssnu/dolphin>) contribution: Jan 2015 to Jun 2015
Distributed machine learning on top of Apache REEF

M-Zoom/M-Biz (<https://github.com/kijungs/mzoom>)
D-Cube (<https://github.com/kijungs/dcube>)
DenseAlert (<https://github.com/kijungs/densealert>)
Anomaly detection in large dynamic tensors

Corescope (<https://github.com/kijungs/corescope>)
Anomaly detection, influential-spreader detection, and degeneracy estimation in graphs

WRS (https://github.com/kijungs/waiting_room)
Tri-Fly (<https://github.com/kijungs/trifly>)
Triangle counting in large dynamic graphs

TALKS	[1] Discovering Progression Stages in Trillion-Scale Behavior Logs WWW 2018	Apr 2018
	[2] Why You Should Charge Your Friends for Borrowing Your Stuff SCS Student Seminar, CMU Data Mining Seminar, CMU IJCAI 2017	Apr 2018 Apr 2018 Aug 2017
	[3] Mining Large Dynamic Graphs and Tensors Thesis Proposal, CMU KDisTech Research Seminar, CMU EE Department Seminar, KAIST NAVER Corporation	Mar 2018 Mar 2018 Jan 2018 Jan 2018
	[4] WRS: Waiting Room Sampling for Accurate Triangle Counting in Real Graph Streams ICDM 2017 Data Mining Seminar, CMU	Nov 2017 Nov 2017
	[5] D-Cube: Dense-Block Detection in Terabyte-Scale Tensors WSDM 2017	Feb 2017
	[6] CoreScope: Graph Mining Using k-Core Analysis - Patterns, Anomalies and Algorithms ICDM 2016 Database Seminar, CMU	Dec 2016 Dec 2016
	[7] M-Zoom: Fast Dense-Block Detection in Tensors with Quality Guarantees ECML/PKDD 2016 KDisTech Research Seminar, CMU Data Mining Seminar, Seoul National University	Sep 2016 Sep 2016 Aug 2016
	[8] BEAR: Block Elimination Approach for Random Walk with Restart on Large Graphs Database Seminar, CMU SIGMOD 2015	Oct 2015 Jun 2015
	[9] Distributed Methods for High-dimensional and Large-scale Tensor Factorization ICDM 2014 Data Mining Seminar, KAIST	Dec 2014 May 2014
TEACHING	Guest Lecturer	
EXPERIENCE	CMU 10-405 Machine Learning with Large Datasets	Feb 2018
	Teaching Assistant	
	CMU 10-601 Introduction to Machine Learning	Fall 2017
	CMU 15-780 Graduate Artificial Intelligence	Spring 2017
PROFESSIONAL	Journal Reviewer	
SERVICES	IEEE Transactions on Knowledge and Data Engineering (TKDE)	2018
	IEEE Signal Processing Letters (SPL)	2017
	IEEE/ACM Transactions on Networking (ToN)	2017
GRADUATE	15-859N Spectral Graph Theory and the Laplacian Paradigm	Fall 2016
COURSEWORK	15-814 Types and Programming Languages	Fall 2016
	15-780 Graduate Artificial Intelligence	Spring 2016
	15-826 Multimedia Databases and Data Mining	Spring 2016
	10-715 Advanced Introduction to Machine Learning	Fall 2015
	15-853 Algorithms in the Real World	Fall 2015

REFERENCES Available on request