Haekyu Park

Contact

Klaus Advanced Computing Building 1305, Georgia Institute of Technology,
266 Ferst Dr NW, Atlanta, GA 30332
Email: haekyu@gatech.edu
Homepage: http://haekyu.com

Research Interests

Machine Learning, Interpretable Machine Learning, Data Mining, Graph Data Mining

Education

Ph.D., Computer Science Aug 2018 - Present
Georgia Institute of Technology, Atlanta, GA
Advisor: Prof. Polo Chau

B.S., Computer Science and Engineering Mar 2012 - Aug 2017
Seoul National University, Seoul, Republic of Korea, Graduated with honors (Cum Laude)
Advisor: Prof. U Kang

Work Experience

Graduate Research Assistant Aug 2018 - Present
Advisor: Prof. Polo Chau
Georgia Institute of Technology

Research Intern June 2016 - May 2018
Advisor: Prof. U Kang
Data Minig Lab at Seoul National University

Publications

1. Junghwan Kim, Haekyu Park, Ji-eun Lee, and U Kang, **SIDE: Representation Learning in Signed Directed Networks**, The Web Conference (Previously known as WWW, World Wide Web Conference) 2018.

2. Haekyu Park, Hyunsik Jeon, Junghwan Kim, Beunguk Ahn, and U Kang, **UniWalk: Explainable and Accurate Recommendation for Rating and Network Data**, Arxiv

3. Haekyu Park, Jinhong Jung, and U Kang, **A Comparative Study of Matrix Factorization and Random Walk with Restart in Recommender Systems**, IEEE International Conference on Big Data (BigData), 2017.

Projects

1. **Recommender System on Videos of Oksusu Application** 2017
   Keywords: Tensorflow, Sequence Embedding, Word Embedding, Approx. k-NN
   SK Telecom, Seoul, Republic of Korea

2. **A Fast and Cost Efficient Data Compression with Shared Virtual Memory in Heterogeneous System Architecture** 2017
   Keywords: OpenCL, GPGPU, SVM, HSA
   Undergraduate thesis

3. **Personalized Recommendation on Credit Card Rewards** 2016
   Keywords: Coupled Matrix Factorization, Time Series Data
   Hyundai Card, Seoul, Republic of Korea

4. **Social Recommender System with Graph and Rating Information** 2016
   Keywords: Matrix Factorization, Network Embedding, Social Network
   Final project of Probabilistic Graphical Model course

Patents

1. U Kang, Junghwan Kim, and Haekyu Park, Apparatus and Method for Representation Learning in Signed Directed Networks, Korean Patent 10-2017-0130914, 2017.

2. U Kang, Haekyu Park, Junghwan Kim, and Hyunsik Jeon, Explainable and Accurate Recommender Method and System using Social Network Information and Rating Information, Korean Patent 10-2017-0159167, 2017.

Awards and Honors

National Scholarship For Science and Engineering 2015
Merit-based

Graduate Coursework

Computer Vision @ Georgia Institute of Technology	Fall 2018
Machine Learning @ Georgia Institute of Technology	Fall 2018
Information Visualization @ Georgia Institute of Technology	Fall 2018
Probabilistic Graphical Models @ Seoul National University	Fall 2016

Technical Skills

Programming Languages
Advanced: Python, Java, C, C++
Experienced: Matlab, R, JavaScript, HTML, Ocaml, Scheme

Numerical Computing
Advanced: Numpy, SciPy, scikit-learn
Experienced: Matlab

Parallel Computing
Experienced: OpenCL