Haekyu Park

Contact

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

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

Work Experience

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

Undergraduate Research Assistant June 2016 - Aug 2017
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, 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 for Videos on Oksusu Application** 2017
   Keywords: Deep Learning, Sequence/Word Embedding, Approx. k-NN, Heterogeneous Features
   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 for 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, R, Java, C, C++
Experienced: Matlab, JavaScript, HTML, Ocaml, Scheme

Machine Learning and Numerical Computing
Advanced: Numpy, SciPy, scikit-learn
Experienced: OpenCV, TensorFlow

Data Visualization
Advanced: Matplotlib
Experienced: D3.js, ggplot

Parallel Computing
Experienced: OpenCL