

# Sangho Suh

Ph.D. Student

University of Waterloo

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## Research Statement

My Ph.D. work focuses on creating new techniques and interactive systems that help people learn in a more effortless, effective way by utilizing what we know about how human process information.

**Areas:** Human-computer interaction, human computation, crowdsourcing, intelligent user interfaces, learning experience

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## Education

**University of Waterloo**/ Ph.D. Candidate in Computer Science  
SEPTEMBER 2017 - , Ontario, CANADA

**Korea University** / B.S. in Computer Science and Engineering  
MARCH 2013 - FEBRUARY 2017, Seoul, SOUTH KOREA

**University of Chicago**<sup>1</sup>  
SEPTEMBER 2008 - DECEMBER 2008, Chicago, IL

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## Honors and Awards

2017 - Ontario Trillium Scholarship (\$40,000/year; 4 years), Univ. of Waterloo  
2017 - GO-BELL Scholarship (\$12,000/year; 2 years), Univ. of Waterloo  
2016 - Best Student Paper Award<sup>2</sup>, IEEE ICDM  
2016 - Best Graduate Project (Research), Korea University  
2016 - Best Graduate Project (Software), Korea University  
2016 - KU Research Scholarship (\$1,000), Korea University  
2016 - Student Travel Award (\$500), IEEE ICDM  
2016 - Academic Excellence Award, Korea University  
2016 - SK Creative Challenge Award (\$500), HCI Korea Conference  
2015 - Project Management Award, KPMA  
2015 - Outstanding Mentor Award (\$1,000), Ilju Foundation  
2014-2016 - Ilju Scholarship (\$30,000), Ilju Foundation  
2010 - Outstanding Soldier Award, Republic of Korea Army

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<sup>1</sup> Did not return due to financial reasons after taking a leave of absence for 2-year military service in South Korea

<sup>2</sup> Out of 917 total submissions

2009 - Distinguished Recruit Award, Republic of Korea Army

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## Publications

### Conference Papers

**S. Suh**, J. Choo, J. Lee and C. Reddy. "Local Topic Discovery via Ensemble of Nonnegative Matrix Factorization." In IJCAI 2017.

**S. Suh**, J. Choo, J. Lee and CK. Reddy. "L-EnsNMF: Boosted Local Topic Discovery via Ensemble of Nonnegative Matrix Factorization." In ICDM 2016.  
(Best Student Paper Award)

### Workshop Papers

S. Chung, **S. Suh**, C. Park, K. Kang, J. Choo and B. Kwon. "ReVACNN: Real-Time Visual Analytics for Convolutional Neural Network." In SIGKDD Workshop on Interactive Data Exploration and Analytics 2016.

S. Chung, C. Park, **S. Suh**, J. Choo and B. Kwon. "ReVACNN: Steering Real-Time Visual Analytics for Convolutional Neural Network." In NIPS Workshop on Future of Interactive Learning Machines 2016.

### Journal

**S. Suh**, S. Shin, J. Choo, J. Lee and C. Reddy. "Localized User-Driven Topic Discovery via Boosted Ensemble of Nonnegative Matrix Factorization." In KAIS 2017.

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## Research Experience

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### **Data Mining & Information Systems Lab**

JANUARY 2014 - AUGUST 2014, Korea University

### **Data and Visual Analytics Lab**

SEPTEMBER 2015 - DECEMBER 2016, Korea University

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## Invited Talks

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"L-EnsNMF: Boosted Local Topic Discovery via Ensemble of Nonnegative Matrix Factorization" Korean Institute of Information Scientists and Engineers (KIISE), Dec. 2016

"L-EnsNMF: Boosted Local Topic Discovery via Ensemble of Nonnegative Matrix Factorization" IEEE International Conference on Data Mining (ICDM), Dec. 2016

**“ReVACNN: Steering Real-Time Visual Analytics for Convolutional Neural Networks”** Future of Interactive Learning Machines workshop at Neural Information Processing Systems (NIPS), Dec. 2016

**“EYEscort: Beacon-driven navigation app for the visually-impaired”**  
HCI Korea Conference, Feb. 2016

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**Industry  
Experience**

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**DaumSoft** / Data Visualization Engineer / 2016  
Implemented APIs for data visualization (d3.js) and designed the layout for the company’s central system which presents all the services the company provides

**Pagoda Academy** / TOEFL Instructor / 2011 – 2012  
Taught more than 2,000 students and pioneered a novel method called “Speaking without Thinking” which significantly improved their English proficiency

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**References**

**Edith Law (Ph.D. advisor)**

Assistant Professor  
School of Computer Science, University of Waterloo  
Email: dr.edith.law@gmail.com

**Jaegul Choo (Undergraduate research advisor)**

Assistant Professor  
Dept. of Computer Science and Engineering, Korea University  
Email: jchoo@korea.ac.kr

**Hyeonchol Kim (Undergraduate research advisor)**

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Dept. of Computer Science and Engineering, Korea University  
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**Jounghyun Kim (Undergraduate research advisor)**

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