

Work/ Research Experience

Software engineer at Google, Mountain View, CA, 2014 - Present.
Applied machine learning (boosted decision tree and deep learning) in Search Quality.

Graduate student researcher at UC San Diego, La Jolla, CA, 2009 - 2014.
Worked with Lawrence Saul and Geoffrey Voelker on machine learning and its applications to security.

Intern at Microsoft Research, Cambridge, MA, Summer 2013.
Worked with Sham Kakade on spectral word embedding.

Intern at Google, Mountain View, CA, Summer 2012.
Worked with Juhyun Lee on large-scale user modeling for advertisements on YouTube.

Intern at Google Research, Mountain View, CA, Summer 2010.
Worked with David Talbot on statistical machine translation.

Software engineer at NAVER, Seoul, Korea, 2005 - 2007.
Launched desktop search and then worked on index builder for NAVER (major search engine in Korea).

Software engineer at ISYTECH, Seoul, Korea, 2004 - 2005.
Developed statistical optimization software for chemical processes.

Software engineer at Nexon, Seoul, Korea, 2002 - 2003.
Developed an online game named "Crazy Arcade" that had one million concurrent users worldwide.

Education

University of California, San Diego, La Jolla, CA.
Ph.D. in Computer Science, 2014. GPA: 3.9 / 4.0.
Advisors: Lawrence K. Saul and Geoffrey M. Voelker
Thesis: Topic Modeling of Hierarchical Corpora

Seoul National University, Seoul, Korea.
B.S. in Computer Science (Summa Cum Laude), 2009. GPA: 3.9 / 4.3.

Publications

Do-kyum Kim, Geoffrey M. Voelker and Lawrence K. Saul. **Topic Modeling of Hierarchical Corpora**. *Submitted for publication, 2014*.

Karl Stratos, **Do-kyum Kim**, Daniel Hsu and Michael Collins. **A Spectral Algorithm for Learning Class-Based n-gram Models of Natural Language**. *UAI 2014*.

Do-kyum Kim, Matthew Der and Lawrence K. Saul. **A Gaussian Latent Variable Model for Large Margin Classification of Labeled and Unlabeled Data**. *AISTATS 2014*.

Do-kyum Kim, Geoffrey M. Voelker and Lawrence K. Saul. **A Variational Approximation for Topic Modeling of Hierarchical Corpora**. *ICML 2013*.

Do-kyum Kim and Lawrence K. Saul. **A Gaussian Latent Variable Model for Ranking**. *Submitted for publication, 2012*.

Do-kyum Kim, Marti Motoyama, Geoffrey M. Voelker and Lawrence K. Saul. **Topic Modeling of Freelance Job Postings to Monitor Web Service Abuse**. *AISEC 2011*.

Selected Honors

1st Place in UC San Diego Programming Contest, 2009.
Samsung Scholarship for graduate study abroad, 2009 - 2014.
3rd, 3rd, 4th Place in Asia Regional ACM International Collegiate Programming Contest (ACM-ICPC), 2007, 2003, 2002.

Teaching
Experience

Teaching Assistant, Seoul National University, 2004.

Taught the university team for the World Final ACM-ICPC.

Teaching Assistant, Summer Program of Olympiad in Informatics, 2003.

Taught candidates for the Korean national team in the International Olympiad in Informatics (IOI).

Relevant
Courses

CSE 250A, Principles of AI: Probabilistic Reasoning and Decision-Making, A+

CSE 250B, Principles of Artificial Intelligence: Learning, A

CSE 291, Unsupervised Learning, A+

ECE 273, Convex Optimization and Applications, A

CSE 252A, Computer Vision I, A

CSE 258A, Cognitive Modeling, A

CSE 202, Algorithm Design and Analysis, A+

Skills

Programming Languages: C/C++ (proficient), Python (proficient), Java (prior experience), MATLAB (proficient), R (prior experience), OCaml (prior experience)

Tools: MapReduce, Git, Subversion

OS: Linux, Windows, Mac
