

Curriculum Vitae

Daehwan Kim

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Citizenship: South Korea (Visa type: F1)

Education:

- **Johns Hopkins University School of Medicine** Sep 2011 - Present
Trainee in McKusick-Nathans Institute of Genetic Medicine
Genomics group led by Dr. Steven L. Salzberg and Dr. Rafael Irizarry
- **University of Maryland, College Park** Sep 2008 - Present
Ph.D. Candidate in Computer Science (GPA: 4.0/4.0)
Supervised under Dr. Steven L. Salzberg
- **Chung-Ang University, Seoul, South Korea** Mar 2000 - Feb 2004
B.Eng. in Computer Science and Engineering
Summa cum laude

Professional Experience:

- **Johns Hopkins University School of Medicine & University of Maryland, College Park** June 2010 - Present
Graduate Research Assistant in Dr. Steven L. Salzberg's lab
 - Working on TopHat, Cufflinks, and TopHat-Fusion.
- **University of Maryland, College Park** Sep 2008 - May 2010
Graduate Teaching Assistant (see my homepage for more details)
- **Nexon DD, Seoul, South Korea** Oct 2003 - Jul 2008
(a game development company)
Chief Technology Officer & Manager
 - Led several projects as a team manager and a main developer
 - Responsible for hiring and managing developers
 - Set and maintained software development process for the quality and accuracy of projects

Journal Publications:

- Differential Gene and Transcript Expression Analysis of RNA-Seq Experiments with TopHat and Cufflinks.
Cole Trapnell, Adam Roberts, Loyal Goff, Geo Pertea, Daehwan Kim, David R. Kelley, Harold Pimentel, Steven L. Salzberg, John L. Rinn, Lior Pachter. *Nature Protocols* 7, 562578 (2012).
- TopHat-Fusion: an algorithm for discovery of novel fusion transcripts.
Daehwan Kim and Steven L. Salzberg. *Genome Biology* 2011, 12:R72.

Honors and Awards:

- Best Poster Award at Johns Hopkins' Annual Young Investigator Symposium on Genomics and Bioinformatics (May 2011)
- Block Grant Fellowship at University of Maryland, College Park, (2008 - 2010)
- Best employee of the year with \$10,000 prize in two consecutive years in Nexon DD (2005, 2006)

Academic Background:

- Computer Science (B.Eng. degree and Ph.D. in progress)
- Mathematics: self-taught most of undergraduate mathematics courses (see my homepage)
- Some of Biology and Electrical Engineering: self-taught (also see my homepage)

Skills:

- **Programming Languages and Libraries**
C/C++ (>10 years), Visual Basic, Java, Python, Perl, OCaml, ASP, Ruby, Lua
STL, MFC, Boost, DirectX, OpenGL, CUDA, Hadoop, ACE(Adaptive Communication Environment), Gamebryo, OGRE, Torque
- **Tools**
Emacs, VIM, gcc/g++/gdb, Make, CVS/SVN, L^AT_EX, Visual Studio, Coq, MySQL, Matlab, Mathematica
- **Operating Systems**
Excellent working knowledge of Linux systems, Windows, Mac
- **Embedded Systems**
ARM9 Embedded Board, ATmega128 MCU, WinAVR Compiler, Ponyprog

References:

Steven L. Salzberg, Ph.D.
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