

Dae Hyun Kim

Building N1, Room 624,
291 Daehak-ro, Yuseong-gu, Daejeon, Republic of Korea, 34141

dhkim16@alumni.stanford.edu
https://dhkim16.github.io
+82-10-5218-7651

EDUCATION

Stanford University

Master of Science & PhD in Computer Science

Advisor: Maneesh Agrawala

Dissertation: Understanding the Interactions between Text and Visualizations

Stanford, CA

Sep 2015 – Dec 2021

California Institute of Technology

Bachelor of Science in Computer Science

Graduation with Honor (GPA: 4.2/4.3)

Pasadena, CA

Sep 2011 – Mar 2015

AWARDS & SCHOLARSHIP

Samsung Scholarship

5-year \$50,000 per year merit-based scholarship awarded by Samsung for graduate studies. Awarded to around thirty students with Korean citizenship.

Sep 2015 – Jun 2020

Henry Ford II Scholar Award

Award for the engineering student at Caltech with the best academic record at the end of the junior year. Awarded to only one student in the Division of Engineering and Applied Science.

Jun 2014

Presidential Science Scholarship (International)

4-year \$50,000 per year merit-based scholarship awarded by the South Korean Government for undergraduate studies. Awarded to only around ten students with Korean citizenship.

Sep 2011 – Mar 2015

EXPERIENCE

KAIST

Postdoctoral researcher (w/ Juho Kim) / Alternative for military service

Keywords: human-computer interaction, artificial intelligence, data visualization / Publication: [1], [2], [3]

Daejeon, Republic of Korea

Dec 2021 – Dec 2024

Stanford University

Research Assistant (w/ Maneesh Agrawala)

Keywords: human-computer interaction, data visualization, natural language processing / Publications: [3], [5], [7], [8]

Stanford, CA

Apr 2015 – Dec 2021

Course Assistant (CS 448B/SYMSYS 195V: Data Visualization)

Sep 2020 – Dec 2020

Course Assistant (CS 193A: Android Programming)

Jan 2017 – Mar 2017

Research Assistant (w/ Percy Liang)

Jan 2016 – Mar 2016

Keywords: artificial intelligence, multi-armed bandits

Research Assistant (w/ Doug James)

Sep 2015 – Dec 2015

Keywords: computer graphics, sound simulation, discrete elastic rods

Tableau Research

Research Intern (w/ Vidya Setlur)

Keywords: human-computer interaction, data visualization, natural language processing / Publication: [5]

Palo Alto, CA

Jun 2020 – Sep 2020

California Institute of Technology

Teaching Assistant (CS 002: Introduction to Programming Methods)

Pasadena, CA

Jan 2015 – Mar 2015

Summer Undergraduate Research Fellow (w/ Shinsuke Shimojo & Sang Wan Lee)

Jun 2014 – Aug 2014

Keywords: electroencephalography data analysis, covariance & Gram matrices, machine learning

Summer Undergraduate Research Fellow (w/ Mohamed Omar)

Jun 2013 – Aug 2013

Keywords: graph theory, chromatic polynomial, orbital chromatic polynomial / Publication: [11]

Samsung Engineering

Intern (Business Innovation Team)

Seoul, Republic of Korea

Aug 2012 – Sep 2012

Seoul National University

Undergraduate Research Intern (Intelligent Database Systems Laboratory w/ Sang-goo Lee)

Seoul, Republic of Korea

Jun 2012 – Aug 2012

Keywords: machine learning, incremental singular value decomposition

Samsung Fire & Marine Insurance

Intern (General Product Development Team)

Seoul, Republic of Korea

Mar 2011

PUBLICATIONS

- [1] Hyung-Kwon Ko, Hyeon Jeon, Gwanmo Park, **Dae Hyun Kim**, Nam Wook Kim, Juho Kim, and Jinwook Seo. “Natural Language Dataset Generation Framework for Visualizations Powered by Large Language Models.” In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems (CHI)*, (Accepted). 2024.
- [2] Hyunwoo Kim, Khanh Duy Le, Giannieve Lim, **Dae Hyun Kim**, Yoo Jin Hong, and Juho Kim. “DataDive: Supporting Readers’ Contextualization of Statistical Statements with Data Exploration.” In *The 29th Annual ACM Conference on Intelligent User Interfaces (IUI)*, (Accepted). 2024.
- [3] **Kim, Dae Hyun**, Seulgi Choi, Juho Kim, Vidya Setlur, and Maneesh Agrawala. “EmphasisChecker: A Tool for Guiding Chart and Caption Emphasis.” *IEEE Transaction on Visualization and Computer Graphics (TVCG)*, vol. 30, no. 1, pp. 120 – 130. 2024.
Presented at:
- The IEEE Visualization Conference (VIS), Oct. 2023
- [4] **Kim, Dae Hyun***, Yoonsu Kim*, Hyungyu Shin, Jinho Son, and Juho Kim. “Towards Understanding the Challenges and Remedies in AI Application Development Planning.” *Korea Computer Congress 2023 (KCC)*, pp. 1421 – 1423. 2023.
- [5] **Kim, Dae Hyun**, Vidya Setlur and Maneesh Agrawala. “Towards Understanding How Readers Integrate Charts and Captions: A Case Study with Line Charts.” In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems (CHI)*, pp. 1 – 11. 2021.
- [6] Setlur, Vidya, Enamul Hoque, **Dae Hyun Kim**, and Angel X. Chang. “Sneak Pique: Exploring Autocompletion as a Data Discovery Scaffold for Supporting Visual Analysis.” In *Proceedings of the 33rd Annual ACM Symposium on User Interface Software and Technology (UIST)*, pp. 966 – 978. 2020.
- [7] **Kim, Dae Hyun**, Enamul Hoque, and Maneesh Agrawala. “Answering Questions about Charts and Generating Visual Explanations.” In *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems (CHI)*, pp. 1 – 13. 2020.
- [8] **Kim, Dae Hyun**, Enamul Hoque, Juho Kim, and Maneesh Agrawala. “Facilitating Document Reading by Linking Text and Tables.” In *Proceedings of the 31st Annual ACM Symposium on User Interface Software and Technology (UIST)*, pp. 423 – 434. 2018.
- [9] **Kim, Dae Hyun**, Taeyoung Kong, and Seungbin Jeong. “Finding Solutions to Generative Adversarial Privacy.” *arXiv preprint arXiv:1810.02069*. 2018.

- [10] **Kim, Dae Hyun**, Hsing Lee, Travis Maron, Charles R. Plott, and Ruijie Teo. “Multiple Item, Ascending Price Auctions: An Experimental Examination of Alternative Auction Sequences.” *Social Science Working Paper No. 1406 California Institute of Technology*. 2015.
- [11] **Kim, Dae Hyun**, Alexander H. Mun, and Mohamed Omar. “Chromatic Bounds on Orbital Chromatic Roots.” *The Electronic Journal of Combinatorics* 21, no. 4 (2014): P4.17.
Presented at:
- Joint Mathematics Meetings, Mathematical Association of America / American Mathematical Society, Jan. 2014
- Southern California Fall Sectional Meeting, Mathematical Association of America, Oct. 2013
- [12] Jin, Juyoun, Kyeong Min Joo, Yoonhee Nam, **Dae Hyun Kim**, Se Jeong Lee, Mi-Young Jo, Younggeon Jin et al. “Schedule-Dependent Synergistic Effect of Rituximab on Methotrexate Chemotherapy Against Lymphoma of the Central Nervous System.” *Experimental and Therapeutic Medicine* 1, no. 6 (2010): 943 – 946.

PATENTS

- [1] Setlur, Vidya, Enamul Hoque, **Dae Hyun Kim**, and Angel X. Chang. “Utilizing Autocompletion as a Data Discovery Scaffold for Supporting Visual Analysis” *US Patent No. 11,868,343*, issued 2024

INVITED TALKS

- | | |
|--|----------|
| Seoul National University Department of Computer Science and Engineering | Jan 2024 |
| Computer Vision and Pattern Recognition (CVPR) Chart Question Answering Workshop | Jun 2021 |

ACADEMIC SERVICE

Program Committee: ACL 2022 In2Writing Workshop

Reviews: CHI 2024; TOCHI 2023; CHI 2023; VIS 2023; CHI 2022 LBW; CHI 2022; UIST 2021; VIS 2021; CHI 2021; EuroVis 2021; UIST 2020; VIS 2020; CHI 2019