

JUHO KIM

Assistant Professor, School of Computing at KAIST
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EDUCATION

Massachusetts Institute of Technology Ph.D. in Electrical Engineering and Computer Science Thesis: Learnersourcing: Improving Learning with Collective Learner Activity Advisors: Robert C. Miller & Krzysztof Z. Gajos	Cambridge, MA Aug.2015
Stanford University M.S. in Computer Science (Specialization: Human-Computer Interaction) Advisor: Scott R. Klemmer	Stanford, CA Jun.2010
Seoul National University B.S. in Computer Science and Engineering (Summa Cum Laude)	Seoul, Korea Jun.2008

RESEARCH INTERESTS

Human-computer interaction, Learning at scale, Crowdsourcing, Civic engagement, Data-driven interaction

EMPLOYMENT

School of Computing, KAIST <i>Assistant Professor of Computer Science</i> Director of KIXLAB (the KAIST Interaction Lab) & Founding Member of HCI@KAIST	Daejeon, Korea Jul.2016–Present
Computer Science Department & Brown Institute, Stanford University <i>Visiting Assistant Professor & Brown Fellow. Host: Maneesh Agrawala</i>	Stanford, CA Aug.2015–Jun.2016
User Interface Design Group, MIT CSAIL <i>Research Assistant. Mentor: Robert C. Miller</i>	Cambridge, MA Sep.2010–Aug.2015
Microsoft Research <i>Research Intern. Mentors: Meredith R. Morris & Andrés Monroy-Hernández</i>	Redmond, WA May 2014–Aug. 2014
Learning Sciences Team, edX <i>Research Intern. Mentor: Piotr Mitros</i>	Cambridge, MA May 2013–Aug.2013
Creative Technologies Lab, Adobe Systems Inc. <i>Research Intern. Mentor: Joel Brandt</i>	San Francisco, CA May 2011–Sep.2011
USER Group, IBM Almaden Research Center <i>Research Intern. Mentors: Eser Kandogan & Thomas P. Moran</i>	San Jose, CA May 2010–Aug.2010
HCI Group, Stanford University <i>Research Assistant. Mentor: Scott R. Klemmer</i>	Stanford, CA Apr.2009–Jun.2010
SystemBase Co., Ltd. <i>Project Manager & Embedded Software Engineer</i>	Seoul, Korea Dec.2004–Sep.2007
Samsung Electronics Co., Ltd. Software Center <i>Summer Intern</i>	Suwon, Korea Jul.2003–Aug.2003

AWARDS & HONORS

Honorable Mention Award CHI 2018; among the top 5% of all submissions [c.29]	Apr.2018
Best Student Paper Honorable Mention Award IUI 2018; among the top 4 awarded papers [c.24]	Feb.2018
Best Paper Runner-Up GroupSight 2017 Workshop on Human Computation for Image and Video Analysis @ HCOMP 2017 [p.39]	Oct.2017
Excellent Reviewer CHI 2017	May 2017
Honorable Mention Award CHI 2016; among the top 4% of all submissions [c.20]	May 2016
Honorable Mention Award Learning at Scale 2016; among the top 4 awarded papers [c.19]	Apr.2016
mediaX “Memory, Estates and Legacies in the Digital World” Grant \$30K, with Maneesh Agrawala, Stanford University	Sep.2015
Brown Fellowship Brown Institute, Stanford University	Aug.2015
Honorable Mention Award CHI 2015; among the top 5% of all submissions [c.16]	Apr.2015
Honorable Mention Award CHI 2015; among the top 5% of all submissions [c.15]	Apr.2015
Honorable Mention Award CHI 2015; among the top 5% of all submissions [c.14]	Apr.2015
Honorable Mention Award CHI 2014; among the top 5% of all submissions [c.9]	Apr.2014
Honorable Mention Award CHI 2014; among the top 5% of all submissions [c.8]	Apr.2014
Notable paper award HCOMP 2013 [c.5]	Nov.2013
2nd Place, Student Research Competition CHI 2013; \$300 award + \$500 support [p.7]	May 2012
1st Place Technical Lecture Award The 8th Annual Young Generation Technical and Leadership Conference	Jan.2012
Best Talk Award Samsung Scholarship Open Talk at the 2011 Samsung Scholarship Academic Camp	Jun.2011
The Samsung Scholarship Tuition and living costs covered for Ph.D. studies (\$50K per year, for 5 years)	2010–2015
The Samsung Scholarship Tuition and living costs covered for Master’s studies (\$50K per year, for 2 years)	2008–2010

Independent Study Scholarship

\$1K Research grant awarded by Center for Teaching & Learning, Seoul National University

Oct.2007

Seoul National University Scholarship

Merit-based scholarships for 7 semesters

Aug.2001–Aug.2004

PUBLICATIONS

Conference & Journal Papers

- [c.34] Personalized Motivation-supportive Messages for Increasing Participation in Crowd-civic Systems.
Paul Grau, Babak Naderi, **Juho Kim**.
Proc. ACM Hum.-Comput. Interact. CSCW 2018: ACM Conference on Computer-Supported Cooperative Work and Social Computing. (24.9% acceptance rate) (to appear)
- [c.33] FourEyes: Leveraging Tool Diversity as a Means to Improve Aggregate Accuracy in Crowdsourcing.
Jean Y. Song, Raymond Fok, **Juho Kim**, Walter S. Lasecki.
ACM Transactions on Interactive Intelligent Systems (TIIS). (in press)
- [c.32] Facilitating Document Reading by Linking Text and Tables.
Dae Hyun Kim, Enamul Hoque, **Juho Kim**, Maneesh Agrawala.
UIST 2018: ACM Symposium on User Interface Software and Technology. (21.3% acceptance rate) (to appear)
- [c.31] Understanding the Effect of In-Video Prompting on Learners and Instructors.
Hyungyu Shin, Eun Young Ko, Joseph Jay Williams, **Juho Kim**.
CHI 2018: ACM Conference on Human Factors in Computing Systems. (25.8% acceptance rate)
- [c.30] RecipeScape: An Interactive Tool for Analyzing Cooking Instructions at Scale.
Minsuk Chang, Leonore Guillain, Hyeungshik Jung, Vivian Hare, **Juho Kim**, Maneesh Agrawala.
CHI 2018: ACM Conference on Human Factors in Computing Systems. (25.8% acceptance rate)
- [c.29] ConceptScape: Collaborative Concept Mapping for Video Learning.
Ching Liu, **Juho Kim**, Hao-Chuan Wang.
CHI 2018: ACM Conference on Human Factors in Computing Systems. (25.8% acceptance rate)
Honorable Mention Award (top 5%).
- [c.28] Enhancing Online Problems Through Instructor-Centered Tools for Randomized Experiments.
Joseph Jay Williams, Anna Rafferty, Dustin Tingley, Andrew Ang, Walter Lasecki, **Juho Kim**.
CHI 2018: ACM Conference on Human Factors in Computing Systems. (25.8% acceptance rate)
- [c.27] To Distort or Not to Distort: Distance Cartograms in the Wild.
Sungsoo (Ray) Hong, Minjoon Yoo, Bonnie Chinh, Amy Han, Sarah Battersby, **Juho Kim**.
CHI 2018: ACM Conference on Human Factors in Computing Systems. (25.8% acceptance rate)
- [c.26] Collaborative Dynamic Queries: Supporting Distributed Small Group Decision-making.
Sungsoo (Ray) Hong, Minhyang (Mia) Suh, Nathalie Henry Riche, Jooyoung Lee, **Juho Kim**, Mark Zachry.
CHI 2018: ACM Conference on Human Factors in Computing Systems. (25.8% acceptance rate)
- [c.25] BebeCode: Collaborative Child Development Tracking System.
Seokwoo Song, **Juho Kim**, Bumsoo Kang, Wonjeong Park, John Kim.
CHI 2018: ACM Conference on Human Factors in Computing Systems. (25.8% acceptance rate)
- [c.24] Two Tools are Better Than One: Tool Diversity as a Means of Improving Aggregate Crowd Performance.
Jean Y. Song, Raymond Fok, Alan Lundgard, Fan Yang, **Juho Kim**, Walter S. Lasecki.
IUI 2018: ACM International Conference on Intelligent User Interfaces. (23% acceptance rate)
Best Student Paper Honorable Mention (among the top 4 awarded papers).
- [c.23] Korero: Facilitating Complex Referencing of Visual Materials in Asynchronous Discussion Interface.

Soon Hau Chua, Toni-Jan Keith Monserrat, Dongwook Yoon, **Juho Kim**, Shengdong Zhao.
Proc. ACM Hum.-Comput. Interact., Vol. 1, No. 2, Article 34. *CSCW 2018: ACM Conference on Computer-Supported Cooperative Work and Social Computing*. (27.3% acceptance rate, 19 pages)

- [c.22] Designing Interactive Distance Cartograms to Support Urban Travelers.
Ray Hong, Rafal Kocielnic, Min-Joon Yoo, Sarah Battersby, **Juho Kim**, Cecilia Aragon.
PacificVis 2017: IEEE Pacific Visualization Symposium. (29.3% acceptance rate, 10 pages)
- [c.21] "Don't Bother Me. I'm Socializing.": Breakpoint-Based Smartphone Notification System.
Chunjong Park, Junsung Lim, **Juho Kim**, Sung-Ju Lee, Dongman Lee.
CSCW 2017: ACM Conference on Computer-Supported Cooperative Work and Social Computing. (35% acceptance rate, 14 pages)
- [c.20] Revising Learner Misconceptions Without Feedback: Prompting for Reflection on Anomalous Facts.
Joseph Williams, Tania Lombrozo, Anne Hsu, Bernd Huber, **Juho Kim**.
CHI 2016: ACM Conference on Human Factors in Computing Systems. (23% acceptance rate, 5 pages)
Honorable Mention Award (top 4%).
- [c.19] AXIS: Generating Explanations at Scale with Learnersourcing and Machine Learning.
Joseph Jay Williams, **Juho Kim**, Anna Rafferty, Samuel Maldonado, Krzysztof Z. Gajos, Walter S. Lasecki, Neil Heffernan.
L@S 2016: ACM Conference on Learning at Scale. (22% acceptance rate, 10 pages)
Honorable Mention Award (top 4 papers).
- [c.18] BudgetMap: Engaging Taxpayers in the Issue-Driven Classification of a Government Budget.
Nam Wook Kim, Jonghyuk Jung, Eun-Young Ko, Songyi Han, Chang Won Lee, **Juho Kim**, Jihee Kim.
CSCW 2016: ACM Conference on Computer-Supported Cooperative Work and Social Computing. (25% acceptance rate, 11 pages, with revise-and-resubmit cycle)
- [c.17] RIMES: Embedding Interactive Multimedia Exercises in Lecture Videos.
Juho Kim, Elena L. Glassman, Andrés Monroy-Hernández, Meredith Ringel Morris.
CHI 2015: ACM Conference on Human Factors in Computing Systems. (23% acceptance rate, 10 pages)
- [c.16] Mudslide: A Spatially Anchored Census of Student Confusion for Online Lecture Videos.
Elena L. Glassman, **Juho Kim**, Andrés Monroy-Hernández, Meredith Ringel Morris.
CHI 2015: ACM Conference on Human Factors in Computing Systems. (23% acceptance rate, 10 pages)
Honorable Mention Award (top 5%).
- [c.15] Factful: Engaging Taxpayers in the Public Discussion of a Government Budget.
Juho Kim, Eun-Young Ko, Jonghyuk Jung, Chang Won Lee, Nam Wook Kim, Jihee Kim.
CHI 2015: ACM Conference on Human Factors in Computing Systems. (23% acceptance rate, 10 pages)
Honorable Mention Award (top 5%).
- [c.14] Apparition: Crowdsourced User Interfaces That Come To Life As You Sketch Them.
Walter Lasecki, **Juho Kim**, Nick Rafter, Onkur Sen, Jeffery Bigham, Michael Bernstein.
CHI 2015: ACM Conference on Human Factors in Computing Systems. (23% acceptance rate, 10 pages)
Honorable Mention Award (top 5%).
- [c.13] Learnersourcing Subgoal Labels for How-to Videos.
Sarah Weir, **Juho Kim**, Krzysztof Z. Gajos, Robert C. Miller.
CSCW 2015: ACM Conference on Computer-Supported Cooperative Work and Social Computing. (28.3% acceptance rate, 11 pages, with revise-and-resubmit cycle)
- [c.12] Data-Driven Interaction Techniques for Improving Navigation of Educational Videos.
Juho Kim, Philip J. Guo, Carrie J. Cai, Shang-Wen (Daniel) Li, Krzysztof Z. Gajos, Robert C. Miller.
UIST 2014: ACM Symposium on User Interface Software and Technology. (22.2% acceptance rate, 10 pages)
- [c.11] Content-Aware Kinetic Scrolling for Supporting Web Page Navigation.

- Juho Kim**, Amy X. Zhang, Jihee Kim, Robert C. Miller, Krzysztof, Z. Gajos.
UIST 2014: ACM Symposium on User Interface Software and Technology. (22.2% acceptance rate, 5 pages)
- [c.10] Attendee-sourcing: exploring the design space of community-informed conference scheduling.
 Anant Bhardwaj, **Juho Kim**, Steven P. Dow, David Karger, Sam Madden, Robert C. Miller, Haoqi Zhang.
HCOMP 2014: AAAI Conference on Human Computation & Crowdsourcing. (32% acceptance rate, 9 pages)
- [c.9] Crowdsourcing step-by-step information extraction to enhance existing how-to videos.
Juho Kim, Phu Nguyen, Sarah Weir, Philip J. Guo, Robert C. Miller, Krzysztof Z. Gajos.
CHI 2014: ACM Conference on Human Factors in Computing Systems. (22.8% acceptance rate, 10 pages)
Honorable Mention Award (top 5%).
- [c.8] Frenzy: collaborative data organization for creating conference sessions.
 Lydia Chilton, **Juho Kim**, Paul André, Felicia Cordeiro, James Landay, Dan Weld, Steven P. Dow, Robert C. Miller, Haoqi Zhang.
CHI 2014: ACM Conference on Human Factors in Computing Systems. (22.8% acceptance rate, 10 pages)
Honorable Mention Award (top 5%).
- [c.7] Understanding in-video dropouts and interaction peaks in online lecture videos.
Juho Kim, Philip J. Guo, Daniel T. Seaton, Piotr Mitros, Krzysztof Z. Gajos, Robert C. Miller.
L@S 2014: ACM Conference on Learning at Scale. (35% acceptance rate, 10 pages)
- [c.6] How video production affects student engagement: an empirical study of MOOC videos.
 Philip J. Guo, **Juho Kim**, Rob Rubin.
L@S 2014: ACM Conference on Learning at Scale. (35% acceptance rate, 10 pages)
- [c.5] Community clustering: leveraging an academic crowd to form coherent conference sessions.
 Paul André, Haoqi Zhang, **Juho Kim**, Lydia B. Chilton, Steven P. Dow, Robert C. Miller.
HCOMP 2013: AAAI Conference on Human Computation & Crowdsourcing. (30% acceptance rate, 8 pages)
Notable Paper Award.
- [c.4] Cobi: a community-informed conference scheduling tool.
Juho Kim, Haoqi Zhang, Paul André, Lydia B. Chilton, Wendy Mackay, Michel Beaudouin-Lafon, Robert C. Miller, Steven P. Dow.
UIST 2013: ACM Symposium on User Interface Software and Technology. (20% acceptance rate, 10 pages)
- [c.3] Social visualization and negotiation: effects of feedback configuration and status.
 Michael Nowak, **Juho Kim**, Nam Wook Kim, Clifford Nass.
CSCW 2012: ACM Conference on Computer-Supported Cooperative Work.
 (40% acceptance rate, 10 pages, with revise-and-resubmit cycle)
- [c.2] How a freeform spatial interface supports simple problem solving tasks.
 Eser Kandogan, **Juho Kim**, Thomas P. Moran, Pablo Pedemonte.
CHI 2011: ACM Conference on Human Factors in Computing Systems. (26% acceptance rate, 10 pages)
- [c.1] Evolutionary topic maps.
Juho Kim, Won-Wook Hong, Robert Ian McKay.
KHCI 2009: HCI Korea Conference. (5 pages)

Book Chapters

- [b.1] Making Static Lessons Adaptive through Crowdsourcing & Machine Learning.
 Joseph Jay Williams, **Juho Kim**, Elena L. Glassman, Anna Rafferty, Walter S. Lasecki.
In Design Recommendations for Intelligent Tutoring Systems: Domain Modeling (Volume 4). 2016.

Posters, Demos, and Workshop Papers

- [p.46] DynamicSlide: Reference-based Interaction Techniques for Slide-based Lecture Videos.
Hyeungshik Jung, Valentina Hijung Shin, **Juho Kim**.
UIST 2018 Poster.
- [p.45] DynamicSlide: Reference-based Interaction Techniques for Slide-based Lecture Videos.
Hyeungshik Jung, Valentina Hijung Shin, **Juho Kim**.
1st workshop on Multimedia for Accessible Human Computer Interface (MAHCI) @ ACM Multimedia 2018.
- [p.44] Crowdsourcing and Education: Towards a Theory and Praxis of Learnersourcing.
Shayan Doroudi, Joseph Jay Williams, **Juho Kim**, Thanaporn Patikorn, Korinn S. Ostrow, Douglas Selent, Neil T. Heffernan, Thomas Hills, Carolyn P. Rosé.
13th International Conference of the Learning Sciences (ICLS) 2018 Symposium.
- [p.43] Micro-NGO: Tackling Wicked Social Problems with Problem Solving and Action Planning Support in Chat.
Sung-chul Lee, Jihee Kim, **Juho Kim**.
CHI 2018 Extended Abstract.
- [p.42] Detecting Personality Unobtrusively from Users' Online and Offline Workplace Behaviors.
Seoyoung Kim, Jiyoun Ha, **Juho Kim**.
CHI 2018 Extended Abstract.
- [p.41] Exprgram: A Language Learning Interface for Mastering Pragmatic Competence.
Kyungje Jo, John Joon Young Chung, **Juho Kim**.
CHI 2018 Extended Abstract.
- [p.40] Collaborative Crowdsourcing Between Experts and Crowds for Chronological Ordering of Narrative Events.
John Joon Young Chung, Joseph Jay Williams, **Juho Kim**.
HCI Korea 2018.
- [p.39] Exprgram: A Video-based Language Learning Interface Powered by Learnersourced Video Annotations.
Kyungje Jo, John Joonyoung Chung, **Juho Kim**.
GroupSight 2017 Workshop on Human Computation for Image and Video Analysis @ HCOMP 2017.
Best paper runner-up.
- [p.38] VideoScape: Augmenting video learning experience with concept map.
Ching Liu, Hao-Chuan Wang, **Juho Kim**.
TAICHI 2017.
- [p.37] Connecting Instructors, Learning Scientists, and Reinforcement Learning Researchers via Collaborative Dynamic Personalized Experimentation.
Joseph Jay Williams, Anna Rafferty, Andrew Ang, Dustin Tingley, Walter Lasecki, **Juho Kim**.
3rd Multidisciplinary Conference on Reinforcement Learning and Decision Making (RLDM 2017).
- [p.36] RecipeScape: Mining and Analyzing Diverse Processes in Cooking Recipes.
Minsuk Chang, Vivian Hare, **Juho Kim**, Maneesh Agrawala.
CHI 2017 Extended Abstract.
- [p.35] PlayBetter: A Phone-based Baby Play Support System for Childcare Bystander Parents.
Seokwoo Song, **Juho Kim**, John Kim.
CHI 2017 Extended Abstract.

- [p.34] Connecting Instructors and Learning Scientists via Collaborative Dynamic Experimentation.
Joseph Jay Williams, Anna Rafferty, Andrew Ang, Dustin Tingley, Walter Lasecki, **Juho Kim**.
CHI 2017 Extended Abstracts.
- [p.33] MOOClets: A Framework for Dynamic Experimentation and Personalization.
Joseph Jay Williams, Anna Rafferty, Samuel Maldonado, Andrew Ang, Dustin Tingley, **Juho Kim**.
Learning at Scale 2017 Work-in-Progress.
- [p.32] Changing News Media Landscape in South Korea.
Hongjun Lim, Choongho Chung, Jihee Kim, **Juho Kim**, Sue Moon, Meeyoung Cha.
WWW 2017 Workshop on Social News On the Web.
- [p.31] Micro-NGO: Crowd-driven social activism via a chat-based online platform.
Sung-Chul Lee, Jihee Kim, **Juho Kim**.
CSCW 2017 Workshop on Crowdsourcing Law and Policy.
- [p.30] Crowdsourcing Law and Policy: A Design-Thinking Approach to Crowd-Civic Systems.
Brian McInnis, Alissa Centivany, **Juho Kim**, Marta Poblet, Karen Levy, Gilly Leshed.
CSCW 2017 Workshop Program.
- [p.29] Dynamic Personal Archives: Tracking How Ideas Progress Over Time.
Jihyeon (Janel) Lee, **Juho Kim**, Maneesh Agrawala.
Stanford HCI + Design Open House.
- [p.28] Automatic Extraction of References Between Text and Charts.
Sherry Ruan, Dae Hyun Kim, **Juho Kim**, Maneesh Agrawala.
Stanford HCI + Design Open House.
- [p.27] Organic Crowdsourcing Systems.
Juho Kim.
AAAI 2016 Spring Symposium: Intelligent systems for supporting distributed human teamwork.
- [p.26] Mitigating Smartphone Interruptions During Social Interactions.
Chunjong Park, Junsung Lim, **Juho Kim**, Sung-Ju Lee, Dongman Lee.
ACM HotMobile 2016: The Seventeenth Workshop on Mobile Computing Systems and Applications.
- [p.25] Learnersourcing: Improving Video Learning with Large-Scale Interaction Data.
Juho Kim.
CSAIL Alliance Program 2015 Annual Meeting.
- [p.24] SPEDS: A Taxonomy for Crowdsourcing in Education.
Piotr Mitros & **Juho Kim**.
CSCL 2015 Workshop on Designing Futures for Learning in the Crowd.
- [p.23] BudgetWiser: Gamification Design Opportunities in the Government Budget Domain.
Nam Wook Kim, Jihee Kim, **Juho Kim**, Chang Won Lee, Eun-Young Ko, Jonghyuk Jung.
CHI 2015 Workshop on Researching Gamification.
- [p.22] BudgetMap: Issue-Driven Navigation for a Government Budget.
Nam Wook Kim, Chang Won Lee, Jonghyuk Jung, Eun-Young Ko, **Juho Kim**, Jihee Kim.
CHI 2015 Extended Abstracts.
- [p.21] Understanding Learners' General Perception Towards Learning With MOOC Classmates: An Exploratory Study.
Soon Hau Chua, **Juho Kim**, Toni-Jan Keith Monserrat, Shengdong Zhao.

Learning at Scale 2015 poster.

- [p.20] Supporting Instructors in Collaborating with Researchers using MOOClets.
Joseph Jay Williams, **Juho Kim**, Brian C. Keegan.
Learning at Scale 2015 poster.
- [p.19] Using and Designing Platforms for In Vivo Educational Experiments.
Joseph Jay Williams, Korinn Ostrow, Xi Xiong, Elena Glasman, **Juho Kim**, Samuel Maldonado, Justin Reich, Neil Heffernan.
Learning at Scale 2015 poster.
- [p.18] The MOOClet Framework: Improving Online Education through Experimentation and Personalization of Modules.
Joseph Jay Williams, Na Li, **Juho Kim**, Jacob Whitehill, Samuel Maldonado, Mykola Pechenizkiy, Larry Chu, Neil Heffernan.
Social Science Research Network (SSRN) Online, November 12, 2014. SSRN ID: 2523265.
- [p.17] Connecting Collaborative & Crowd Work with Online Education.
Joseph Jay Williams, Markus Krause, Praveen Paritosh, Jacob Whitehill, Justin Reich, **Juho Kim**, Piotr Mitros, Neil Heffernan, Brian C. Keegan.
CSCW 2015 Workshop Program.
- [p.16] Incorporating Collaborative Learning Into xMOOCs: A Proposal of Future Research Directions.
Soon Hau Chua, **Juho Kim**, Toni-Jan Keith Monserrat, Shengdong Zhao.
CSCW 2015 Workshop on Connecting Collaborative & Crowd Work with Online Education.
- [p.15] The MOOClet Framework: Improving Online Education through Experimentation and Personalization of Modules.
Joseph Jay Williams, Na Li, **Juho Kim**, Jacob Whitehill, Samuel Maldonado, Mykola Pechenizkiy, Larry Chu, Neil Heffernan.
NIPS 2014 Workshop on Human Propelled Machine Learning.
- [p.14] Learnersourcing: Improving Video Learning with Collective Learner Activity.
Juho Kim.
HCOMP 2014 Workshop on Crowdsourcing, Online Education, and Massive Open Online Courses.
- [p.13] Leveraging video interaction and content to improve video learning.
Juho Kim, Shang-Wen (Daniel) Li, Carrie J. Cai, Krzysztof Z. Gajos, Robert C. Miller.
CHI 2014 Workshop on Learning Innovation at Scale.
- [p.12] Interaction peaks and data-driven interfaces for online lecture videos.
Juho Kim.
Quanta-CSAIL 2014 workshop poster.
- [p.11] Enhancing how-to videos with crowdsourcing and learnersourcing.
Juho Kim.
Quanta-CSAIL 2014 workshop poster.
- [p.10] Cobi: community-informed conference scheduling.
Juho Kim, Haoqi Zhang, Paul André, Lydia B. Chilton, Anant Bhardwaj, David Karger, Steven P. Dow, Robert C. Miller.
HCOMP 2013 demo.
- [p.9] User interfaces and crowdsourcing workflows for enhancing the video learning experience.
Juho Kim, Phu Nguyen, Robert C. Miller, Krzysztof Z. Gajos.

SoCS 2013 Doctoral Symposium.

[p.8] Learnersourcing subgoal labeling to support learning from how-to videos.

Juho Kim, Robert C. Miller, Krzysztof Z. Gajos.

CHI2013 Extended Abstracts. (32% acceptance rate)

[p.7] ToolScape: enhancing the learning experience of how-to videos.

Juho Kim.

CHI2013 Extended Abstracts. (32% acceptance rate)

2nd place, Student Research Competition.

[p.6] Generating annotations for how-to videos using crowdsourcing.

Phu Nguyen, **Juho Kim**, Robert C. Miller.

CHI2013 Extended Abstracts. (32% acceptance rate)

[p.5] Cobi: communitysourcing large-scale conference scheduling.

Haoqi Zhang, Paul André, Lydia Chilton, **Juho Kim**, Steven P. Dow, Robert C. Miller, Wendy MacKay, Michel Beaudouin-Lafon.

CHI2013 Interactivity. (32% acceptance rate)

[p.4] Mechanical Turk is Not Anonymous.

Matthew Lease, Jessica Hullman, Jeffrey P. Bigham, Michael S. Bernstein, **Juho Kim**, Walter S. Lasecki, Saeideh Bakhshi, Tanushree Mitra, Robert C. Miller.

Social Science Research Network (SSRN) Online, March 6, 2013. SSRN ID: 2228728.

[p.3] Photoshop with friends: a synchronous learning community for graphic design.

Juho Kim, Ben Malley, Joel Brandt, Mira Dontcheva, Diana Joseph, Krzysztof Z. Gajos, Robert C. Miller.

CSCW 2012 Interactive Demo.

[p.2] Crowdsourcing interface for collecting correspondences of web pages.

Juho Kim, Ranjitha Kumar, Scott R. Klemmer.

UIST 2009 Poster.

[p.1] Automatic retargeting of web page content.

Ranjitha Kumar, **Juho Kim**, Scott R. Klemmer.

CHI 2009 Extended Abstracts.

Unpublished Manuscripts and Tech Reports

[u.2] Learning Graphic Design Skills on the Web: Challenges in Locating, Understanding, and Employing External Help.

Juho Kim, Benjamin Malley, Joel Brandt, Mira Dontcheva, Diana Joseph, Krzysztof Z. Gajos, Robert C. Miller.

Unpublished Manuscript, 2011.

[u.1] ReadWriter: Task Automation and Feedback Support for Bloggers with Inline Syntax [[]].

Juho Kim, Chen-Hsiang Yu, Robert C. Miller, Krzysztof Z. Gajos.

Unpublished Manuscript, 2011.

TEACHING

Instructor

- Introduction to Social Computing (KAIST CS473) Fall 2018
- Introduction to Research (KAIST CS492) Fall 2018
- Computer Science Project (KAIST CS408) Fall 2018

- Introduction to Human-Computer Interaction (KAIST CS374) Spring 2018
- Computer Science Project (KAIST CS408) Spring 2018
- Crowdsourcing & Social Computing (KAIST CS492): 29 students Fall 2017
- Introduction to Human-Computer Interaction (KAIST CS374): 74 students Spring 2017
- School of Computing Colloquium (KAIST CS966/986), with Dongman Lee Spring 2017
- Crowdsourcing (KAIST CS492): 22 students Fall 2016
- User Interface Design (MIT 6.813/6.831), with Robert C. Miller: 200 students Spring 2015

Teaching Assistant

- User Interface Design (MIT 6.813/6.831) for Robert C. Miller Spring 2012

ADVISING & MENTORING

Current Ph.D. Students

- **Minsuk Chang** (Ph.D. student at KAIST) Mar.2016–Present
- **Sung-Chul Lee** (Ph.D. student at KAIST, Co-advised by Jihee Kim) Aug.2016–Present
- **Seoyoung Kim** Jul.2017–Present

Current M.S. Students

- **Hyungyu Shin** Mar.2017–Present
- **Hyeungshik Jung** Mar.2017–Present
- **Paul Grau** (M.S. student at KAIST/TU Berlin dual-degree program) Sep.2016–Present
- **Hyunwoo Kim** Sep.2017–Present
- **Eunyoung Ko** Mar.2018–Present
- **Kyung Je Jo** Mar.2018–Present

Undergraduate / Visiting Student Mentoring

- **Mercedes Huertas** (Univ. of Trento, Italy) Jan.2018–Jun.2018
- **Hyunjong Lee** (KAIST) Dec.2017–Jun.2018
- **Jiyoun Ha** (KAIST URP) Dec.2017–Jun.2018
- **Tae Soo Kim** (KAIST) Dec.2017–Present
- **Hyoungwook Jin** (KAIST) Dec.2017–Present
- **Seayeon Lee** (KAIST) Dec.2017–Feb.2018
- **Arti Thakur** Sep.2017–Present
- **Leonore Guillain** (EPFL) Jun.2017–Sep.2017
- **Amy Han** (Swarthmore College) Jun.2017–Sep.2017
- **Beomsu Kim** (KAIST) Jun.2017–Dec.2017
- **Hyunsuk Shin** (KAIST) Jun.2017–Sep.2017
- **Wookjae Byun** (KAIST) Jun.2017–Aug.2017
- **Suhwan Jee** (KAIST) Jun.2017–Sep.2017
- **Jooyoung Lee** (KAIST) Jun.2017–Nov.2017
- **Ina Ryu** (KAIST) Jun.2017–Dec.2017
- **Hyunwoo Kim** (KAIST) Mar.2017–Aug.2017
- **Eric Kim** (KAIST) Mar.2017–Jun.2017
- **Eunyoung Ko** (M.S. student at SNU) Mar.2017–Feb.2018
- **Jonghyuk Jung** (KAIST) Mar.2017–Oct.2017
- **John Joon Young Chung** (SNU) Mar.2017–Jul.2018
- **Jean Young Song** (Ph.D. student at University of Michigan) Jan.2017–Present
- **Ray Hong** (Ph.D. student at UW) Sep.2016–Present

- **Jaesung Huh** (SNU) Jan.2017–Feb.2017
- **Deokseong Kim** (KAIST) Jan.2017–Feb.2017
- **Kyung Je Jo** (KAIST URP) Jan.2017–Feb.2018
- **Soyeon Park** (KAIST) Sep.2016–Aug.2017
- **Ching (Jean) Liu** (NTHU Taiwan, co-mentoring with Hao-Chuan Wang) Sep.2016–Jun.2017
- **Juho Sun** (KAIST) Sep.2016–Dec.2016
- **Hyungyu Shin** (SNU) Jul.2016–Feb.2017
- **Hyeungshik Jung** (POSTECH) Jul.2016–Feb.2017
- **Dongkwan Kim** (KAIST) Jul.2016–Dec.2016
- **Jiwoo Park** (KAIST) Jul.2016–Dec.2016
- **Taekyung Park** (SNU) Jul.2016–Aug.2016
- **Hyun Sung Cho** (KAIST URP) Dec.2015–Dec.2016

Undergraduate Graduation Research Advisor

- **Hyoungcheol Moon** (KAIST) Fall 2017
- **Dongkwan Kim** (KAIST) Fall 2017
- **Ina Ryu** (KAIST) Fall 2017

Ph.D. Thesis Committee

- **Dajung Kim** (KAIST Industrial Design)
- **Jaeyeon Lee** (KAIST School of Computing)
- **Byung Hyung Kim** (KAIST School of Computing)
- **Ingeon Shin** (KAIST Industrial Design)
- **Bokyoung Lee** (KAIST Industrial Design)

Other Research Mentoring

- **Yoo Jin Lim** (former Ph.D. student at KAIST) Sep.2016–Feb.2017
- **Dae Hyun Kim** (Ph.D. student at Stanford) Jan.2016–Present
Text-Chart Reference Inference. Co-mentoring with Maneesh Agrawala at Stanford.
- **Vivian Hare** (Undergraduate at Stanford) Jan.2016–Jun.2016
Cooking Recipe Mining at Scale. Co-mentoring with Maneesh Agrawala at Stanford.
- **Janel Lee** (Undergraduate at Stanford) Sep.2015–Jun.2016
Deeply Linked Multimedia Library. Co-mentoring with Maneesh Agrawala at Stanford.
- **Chunjong Park, Joonseong Lim** (M.S. students at KAIST) Aug.2015–May 2016
Social Context Awareness Support ([c.21]). Co-mentoring with Sung-Ju Lee and Dongman Lee at KAIST.
- **Soon Hau Chua** (Ph.D. student at National University of Singapore) Jun.2014–Present
Discussion Support for MOOCs. Co-mentoring with Shengdong Zhao at NUS. ([p.21])
- **Peter Githaiga** (UROP, undergraduate at MIT) Nov.2014–May 2015
Integrating LectureScape into the edX platform. Co-mentored with Piotr Mitros at edX.
- **Nam Wook Kim** (Ph.D. student at Harvard SEAS), Eunyoung Ko, Chang Won Lee, Jonghyuk Jung, Blaire Han, Hyun Sung Cho (Undergraduates at KAIST) Dec.2013–Present
BudgetWiser: Crowdsourcing budgetary opinions and promoting online discussions. ([c.18][c.15][p.23][p.22])
Co-mentoring with Jihee Kim at KAIST.
- **Sarah Weir** (Super UROP, undergraduate at MIT) Sep.2013–May 2014
Applied learnersourcing to label subgoal structure from how-to videos ([c.13]). Sarah won 2nd place in Student Research Competition at CHI2014 & Robert M. Fano UROP Award at MIT EECS.
- **Carolyn Chang & Danny Sanchez** (Undergraduates at MIT) Jul.2013–Aug.2013
Lecture video annotation tool (part of 6.mitx).

- **Megan O’Leary & Joseph Hanley** (Undergraduates at MIT) Jul.2013–Aug.2013
edX student activity visualization (part of 6.mitx).
- **Michelle Johnson & Ashley Cho** (Undergraduates at MIT) Jul.2013–Aug.2013
edX grade distribution visualization (part of 6.mitx).
- **Phu Nguyen** (Super UROP, undergraduate at MIT) Sep.2012–May 2013
Crowdsourcing step-by-step information from how-to videos ([c.9][p.6]).

INVITED TALKS

- **Introduction to HCI**
- Open KAIST Nov. 3, 2017
- **Interaction at scale**
- Korea Computer Graphics Society Jul. 12, 2018
- Korea Computer Congress, New Faculty Session Jun. 21, 2018
- KAIST Humanities and Social Sciences Colloquium Mar. 21, 2018
- CSE Department, Seoul National University Feb. 6, 2018
- Kyungpook National University Sep. 22, 2017
- TAICHI 2017 Panel Aug. 11, 2017
- Civil & Environmental Engineering, Seoul National University Jun. 9, 2017
- Korean Society for Cognitive Science May 27, 2017
- Software Graduate Program, KAIST May 2, 2017
- Freshman Seminar (HSS190), KAIST Apr. 26, 2017
- Keynote at LG Electronics UX Conference 2016 Oct 4, 2016
- **Technology for collective action**
- Vanilla Forum, KAIST Mar. 23, 2017
- Ministry of the Interior, Korean Government Mar. 17, 2017
- **Recipe mining at scale**
- Brown Institute Media Innovation Showcase 2016, Stanford University Sep. 29, 2016
- **Multimedia for personal narratives: Working with the Doug Engelbart archives**
- The #mediaX2016 Conference, Stanford University May 17, 2016
- **Organic crowdsourcing systems**
- AAAI Spring 2016 Symposium Mar. 22, 2016
- Social Algorithms Lab, Stanford University Jan. 27, 2016
- **Video interaction analytics**
- Lytics Seminar Class (EDUC 407), Stanford University Jan. 28, 2016
- **Learnersourcing: Improving video learning with collective learner activity**
- Korea National University of Education Jul. 31, 2018
- ICLS 2018 Symposium Jun. 24, 2018
- Industrial and Systems Engineering, KAIST May 24, 2017
- Education Research Institute, Seoul National University Jan. 12, 2017
- School of Computing Colloquium, KAIST Sep. 26, 2016
- University of Washington CSE Seminar May 18, 2016

- CMU Crowdsourcing Lunch Seminar Dec. 1, 2015
- Graphics Café, Stanford University Oct. 29, 2015
- Berkeley Institute of Design Oct. 27, 2015
- Udemy Sep. 2, 2015
- MIT EECS Thesis Defense Jul. 30, 2015
- Graphics Group, MIT CSAIL May 6, 2015
- Post-CHI Workshop, KAIST Apr. 24, 2015
- Computer Science, KAIST Apr. 15, 2015
- Department of Information Convergence, Seoul National University GSCST Apr. 13, 2015
- Microsoft Research Mar. 31, 2015
- Computer Science & Engineering, University of Michigan Mar. 10, 2015
- Information Science, Cornell University Feb. 25, 2015
- Creative Technologies Lab, Adobe Research Feb. 12, 2015

Data-driven interaction techniques for improving navigation of educational videos

- Boston University Image and Video Computing group seminar Oct. 27, 2014
- HarvardX Research Colloquium Sep. 26, 2014

The future of video

- Samsung Economics Research Institute Dec. 30, 2013

Video learning at scale with crowdsourcing and learnersourcing

- UVR Lab, Graduate School of Culture Technologies, KAIST Dec. 27, 2013
- Dept. of Knowledge Service Engineering, KAIST Dec. 23, 2013
- UI/UX Inventor Club, Korea Dec. 20, 2013
- Korean Society of Design Science Seminar Series, Sungkyunkwan University Dec. 19, 2013
- HCI Lab, Seoul National University Dec. 17, 2013

Enhancing the learning experience of how-to videos

- Graphics Group, MIT CSAIL Apr. 10, 2013
- edX Learning Sciences Team Mar. 7, 2013
- Computer Science Department, KAIST Dec. 21, 2012
- ROSAEC Seminar Series, Seoul National University Dec. 18, 2012
- Epoch Foundation @ MIT Oct. 17, 2012

Online education and massive open online courses (MOOCs)

- Open Entrepreneur Center Dec. 27, 2012
- Todam: Boston Korean Students Meeting Oct. 13, 2012
- Samsung Scholarship Open Talk Jun. 26, 2012

Crowdsourcing: engineering collective intelligence

- Korean Society of Design Science Seminar Series, Yonsei University Dec. 20, 2012
- Department of Software, Sungkyunkwan University Jul. 3, 2012
- Young Generation Technical and Leadership, KSEA Jan. 6, 2012
- Todam: Boston Korean Students Meeting Oct. 8, 2011
- Samsung Scholarship Open Talk Jun. 29, 2011

Creativity support tools

- HCI Lab, Seoul National University Jan. 4, 2011

SELECTED PRESS

ETNews (전자신문) | 2018.04.09 (Korean)

KAIST '순차 지식' 정리해 주는 알고리즘 플랫폼 개발
<http://www.etnews.com/20180409000376>

The KAIST Herald | 2017.10.19

KAIST Rallies Against Slow Internet
<http://herald.kaist.ac.kr/news/articleView.html?idxno=1489>

EBS DocuPrime | 2017.9.20

4차 산업혁명 시대 교육대혁명: 3부. 대학, 변해야 산다
<http://home.ebs.co.kr/docuprime/newReleaseView/345>

KAIST Breakthroughs | 2017.09.01

SCAN: Social context-aware smartphone notification system
http://breakthroughs.kaist.ac.kr/?post_no=913

ETNews (전자신문) | 2017.08.08 (Korean)

상황에 따라 스마트폰 알림 조절해주는 앱 나온다...KAIST, 인공지능 활용 SCAN 기술 개발
<http://www.etnews.com/20170807000268>

ETNews (전자신문) | 2017.07.10 (Korean)

[KAIST AI를 선도한다]<에필로그>KAIST AI 기술 본류는 전산학부
<http://www.etnews.com/20170710000276>

ETNews (전자신문) | 2017.06.06 (Korean)

AI로 맞춤형 영상콘텐츠 서비스 한다...KAIST, '집단지성' 기반 영상 서비스 기술 개발
<http://www.etnews.com/20170605000179>

KAIST Times (카이스트신문) | 2017.05.16 (Korean)

사람: 전산학부 김주호 교수
<http://times.kaist.ac.kr/news/articleView.html?idxno=3943>

ETNews (전자신문) | 2017.05.01 (Korean)

[KAIST AI를 선도한다] AI는 학제 간 연구 가능성 높여 주는 기반 기술
<http://m.etnews.com/20170428000285>

KAIST Times (카이스트신문) | 2017.03.28 (Korean)

답답한 인터넷 속도, 이번에는 개선될까
<http://times.kaist.ac.kr/news/articleView.html?idxno=3885>

New Scientist | 2017.03.23

Phone learns to send app notifications only when you want them
<https://www.newscientist.com/article/2125669-phone-learns-to-send-app-notifications-only-when-you-want-them/>

Stanford Daily | 2016.09.30

Brown Institute showcase features tour guide drones, defense contract database
<http://www.stanforddaily.com/2016/09/30/brown-institute-showcase-features-tour-guide-drones-defense-contract-database/>

CBC Radio: Spark | 2015.02.20

Crowdsourcing better how-to videos
<http://www.cbc.ca/radio/spark/276-william-gibson-banner-ads-as-art-crowdsourcing-better-how-to-videos-and-more-1.2965079/crowdsourcing-better-how-to-videos-1.2965157>

BostInno | 2015.02.16

MIT Study Shows How Educational Videos Could Be Better
<http://bostinno.streetwise.co/2015/02/16/mit-study-shows-how-educational-videos-could-be-better/>

MIT News Office | 2015.02.11

Better how-to videos
<http://newsoffice.mit.edu/2015/better-how-to-videos-0211/>

Fast Company Design | 2015.01.29

MIT Students Redesign The How-To Video, In 4 Easy Steps

<http://www.fastcodesign.com/3041579/mit-students-redesign-the-how-to-video-in-4-easy-steps/>

Forbes | 2014.08.11

MIT Team Turns 6.9 Million Clicks Into Insights To Improve Online Education

<http://www.forbes.com/sites/peterhigh/2014/08/11/mit-team-turns-6-9-million-clicks-into-insights-to-improve-online-education/>

eCampus News | 2014.08.05

Learning from MOOC mistakes, one click at a time

<http://www.ecampusnews.com/top-news/mooc-learning-767/>

TICBeat | 2014.08.02 (Spanish)

El MIT investiga el camino hacia el aprendizaje online más eficiente

<http://www.ticbeat.com/tecnologias/mit-investiga-aprendizaje-online-eficiente/>

Bostinno | 2014.07.31

MIT-Spun 'YouTube for MOOCs' is Solving a Major Problem Plaguing Online Education

<http://bostinno.streetwise.co/2014/07/31/how-do-online-learners-watch-videos-lecturescape-mits-youtube-for-moocs-516442/>

News Peppermint | 2014.07.29 (Korean)

온라인 교육의 성패를 가르는 요인들

http://newspeppermint.com/2014/07/29/online_education/

MIT News Office | 2014.07.28

What 6.9 million clicks tell us about how to fix online education

<http://newsoffice.mit.edu/2014/what-69-million-clicks-tell-us-about-how-fix-online-education/>

ACADEMIC SERVICES

Departmental Committees

- Public Relations 2016–Present
- Future Planning 2016, 2018–Present
- Graduate Admissions 2016–Present

Program Committee (meta reviewer)

- CHI 2018 (Subcommittee: Special Application Areas) + Best paper committee
- CSCW 2018
- UIST 2017
- CSCW 2017 (Systems subcommittee)
- Learning at Scale 2015-2017
- CHI 2015 Works-in-Progress

Program Committee (review only)

- Learning at Scale 2018
- Linked Democracy: AI for Democratic Innovation (IJCAI 2017 Workshop)
- HCOMP 2016
- WWW 2016
- IUI 2016
- HCI Korea 2016-2017

Reviewer

- CHI 2008-2018
- UIST 2012 & 2014-2017
- CSCW 2008 & 2011-2018

- DIS 2018
- MobileHCI 2014-2016
- SIGGRAPH Asia 2015
- InfoVis 2015
- GI 2015-2016
- ICWSM 2014
- EDM 2014
- HCOMP 2013
- IWIC 2009
- Journals: FnTHCI, UMUI, Journal of Selected Topics in Signal Processing, IJAIED, Journal of the HCI Society of Korea

Demos Co-Chair – UIST 2017-2018

Posters Co-Chair – UIST 2015-2016

Doctoral Consortium Co-Chair – HCI Korea 2018

Workshop Organizer – Crowdsourcing Law and Policy (CSCW 2017)

Head Organizer – KAIST@HCI Seminar Series 2016–Present

Conference Organizer – Webmaster (CHI 2015)

Conference Organizer – Scheduling + communitysourcing (CHI 2013-2015, CSCW 2014-2015)

Workshop Organizer – Connecting Collaborative & Crowd Work with Online Education (CSCW 2015)

Workshop Organizer – CrowdCamp (HCOMP 2013-2014)

Faculty Mentor – KAIST Presidential Fellow 2017

Student Volunteer – CHI 2010-2012, UIST 2012, CSCW 2013, APCHI 2008

Head of Digital Learning Subcommittee – MIT Graduate Student Council 2013–2014

Organizer – Todam interdisciplinary weekly seminar 2012–2014

Organizer – MIT CSAIL HCI Seminar Series 2011–2015

Organizer – BostonCHI Labs Research Consortium 2011–2015

President – MIT EECS Korean Graduate Student Association 2012–2013

REFERENCES

Robert C. Miller

Professor, Massachusetts Institute of Technology
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Associate Professor, Harvard University
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