JEEEUN KIM

www.jeeeunkim.com

Email: jeeeun.kim@colorado.edu
Mobile: (720) 308-4547

1B10 Discovery Learning Center (DLC)
430 UCB
Boulder, CO 80309

RESEARCH INTERESTS

Human-AI Interaction, Digital Fabrication, Human-Computer Interaction (HCI), and Design Research

EDUCATION

2014 - Present
Ph.D. Student in Computer Science
University of Colorado, Boulder
Committee: Tom Yeh (Chair), Mark D Gross, Jennifer Mankoff, Shaun Kane, Daniel Ashbrook

2016 Jan. – Sep.
Visiting PhD Scholar, HCI Institute, School of Computer Science
Carnegie Mellon University
Host: Jennifer Mankoff, Scott Hudson
DIY Assistive Technology, 3D Printed real world objects adaptation design

2015
M.S. in Computer Science
University of Colorado, Boulder
Advisor: Tom Yeh, & Ann Eisenberg

2010
B.E. in Computer Engineering
Korea Aerospace University, South Korea
Undergraduate Thesis Advisor: Inbok Lee
Summa Cum Laude (Top 1% of class), 1st Place Senior Capstone Project and Undergraduate Thesis

EMPLOYMENT

2014-Present
University of Colorado Boulder, CO
Research Assistant

2018 Summer
Adobe Research, San Francisco, CA
Research Intern, Creative Intelligence Lab (Mentor: Qingnan (James) Zhou)
- Expressive Design Tool for Non-visual Property modeling in Digital Fabrication

2017 Summer
Ericsson Research, Santa Clara, CA
Research Intern (Mentor: Alvin Jude Hari Haran)
- Hololens-Web hosting application to support remote collaborations between distant users using Augmented Reality

2013 Summer
JumpCloud Inc., Boulder, CO
S/W Engineering Intern
- Developed web service (and supporting DB collection) reporting IP reputation to provide security statistics for cloud storage service/business

2010-2012
Korea Telecom (KT), Seoul, Korea
Project Manager, New Business Strategy Department, The Head Office
- Designed the system for an online video contents delivery service

S/W Engineer, Fast Incubation Team, Enterprise Business Department
- Developed a wifi AP based app auto-synchronization system ([p.1], [p.2])

2008 Spring **LG Electronics, Seoul, Korea**
Research Intern, HCI Group, Advanced R&D Center

- Implemented a haptic feedback feature-phone prototype and vibro-haptic patterns
- Designed an user interface to support custom haptic pattern/gesture generation

2007 Winter **Samsung, Seoul, Korea**
Engineering Intern, Telecommunication/Network Division

- Participated in Haptic feedback generating development process phone (in feature-phone firmware levels)

PEER REVIEWED CONFERENCE PAPERS (Oral Presentation)

[c.11] Clement Zheng, **Jeeeun Kim**, Daniel Leithinger, Mark D Gross, & Ellen Yi-Luen Do. *Mechamagnets: Designing and Fabricating Haptic and Functional Physical Inputs with Embedded Magnets.* In Proceedings of International Conference on Tangible, Embedded, and Embodied Interaction (TEI'19) (To appear)

[c.10] **Jeeeun Kim**, Clement Zheng, Haruki Takahashi, Mark D Gross, Daniel Ashbrook, & Tom Yeh. *Compositional 3D Printing: Expanding & Supporting Workflows Towards Compositional 3D Printing.* In Proceedings of ACM Symposium On Computational Fabrication (SCF'18)

[c.9] Tom Yeh & **Jeeeun Kim** *CraftML: 3D Modeling is Web Programming*, In Proceedings of the 36th Annual ACM SIGCHI Conference on Human Factors in Computing Systems (CHI'18) (Acceptance rate: 25%)

[c.8] **Jeeeun Kim,** Anhong Guo, Tom Yeh, Scott E. Hudson, & Jennifer Mankoff. *Understanding Uncertainty in Measurement and Accommodating its Impact in 3D Modeling and Printing*, In Proceedings of ACM Conference on Designing Interactive Systems (DIS'17) (Acceptance rate: 22%)

[c.7] **Jeeeun Kim**, Haruki Takahashi, Homey Miyashita, Michelle Annet, & Tom Yeh. *Machines as Co-Designers: A Fiction on the Future of Human-Fabrication Machine Interaction,* (alt.chi) In Proceedings of Extended Abstracts of the 35th Annual ACM SIGCHI Conference on Human Factors in Computing Systems (CHI'17) (Acceptance rate: 20%)

[c.6] Anhong Guo, **Jeeeun Kim**, Xiang 'Anthony' Chen, Tom Yeh, Scott E. Hudson, Jennifer Mankoff, & Jeffrey P. Bigham *Façade: Auto-generating Tactile Interfaces to Appliances*, In Proceedings of the 35th Annual ACM SIGCHI Conference on Human Factors in Computing Systems (CHI'17) (Acceptance rate: 25%)

[c.5] Hyunjoo Oh, **Jeeeun Kim**, Cory Morales, Mark D. Gross, Michael Eisenberg, & Sherry Façade *FoldMecha: Exploratory Design and Engineering of Mechanical Papercraft.* In Proceedings of International Conference on Tangible, Embedded, and Embodied Interaction (TEI'17) (Acceptance rate: 27%)

[c.4] Xiang 'Anthony' Chen, **Jeeeun Kim**, Stelian Coros, Jennifer Mankoff, & Scott E. Hudson, *Reprise: A Design Tool for Specifying, Generating, and Customizing 3D Printable Adaptations on Everyday Objects*, In Proceedings of Annual Symposium on User Interface Software and Technology (UIST'16) (Acceptance rate: 21%)

[c.3] Claudia D. Roquet, **Jeeeun Kim**, & Tom Yeh, *3D Folded PrintGami: Transforming Passive 3D Printed Objects to Interactive by Inserted Paper Origami Circuits*, In Proceedings of ACM Conference on Designing Interactive Systems, (DIS'16) (Acceptance rate: 26%)

[c.2] **Jeeeun Kim**, & Tom Yeh, *Toward 3D-Printed Movable Tactile Pictures for Children with Visual Impairments*, In Proceedings of the 33rd Annual ACM SIGCHI Conference on Human Factors in Computing Systems (CHI'15) (Acceptance rate: 23%)

[c.1] Abigale Stangl*, **Jeeeun Kim***, Tom Yeh, *3D Printed Tactile Picture Books for Children with Visual Impairments: A Design Probe*, In Proceedings of conference on Interaction design and children (IDC'14), (Acceptance rate: 30%)

PEER REVIEED PUBLICATION OTHERS (Doctoral Symposium, Poster, Demo)

[d.10] Thijs Roumen, Daniel Ashbrook, Xiang 'Anthony' Chen, Huaishu Peng, **Jeeeun Kim**, Gierad Laput, Patrick Baudisch, *Ubiquitous Fabrication* (In submission)

[d.9] **Jeeeun Kim.** *Shall We Fabricate? Collaborative, Bidirectional, Incremental Fabrication*, In Proceedings of Adjunct Annual Symposium on User Interface Software and Technology (UIST'17)

[d.8] Anhong Guo, **Jeeeun Kim**, Xiang 'Anthony' Chen, Tom Yeh, Scott E. Hudson, Jennifer Mankoff, & Jeffrey P. Bigham, *Façade: Auto-generating Tactile Interfaces to Appliances*, In Proceedings of 18th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS'16)

[d.7] **Jeeeun Kim**, Swamy Ananthanarayan. & Tom Yeh, *Seen Music: Ambient Music Data Visualization for Children with Hearing Impairments*, In Proceedings of conference on Interaction design and children (IDC'15)

[d.6] **Jeeeun Kim**, Hyunjoo Oh, & Tom Yeh, *A Study to Empower Children to Design Movable Tactile Pictures for Children with Visual Impairments*, In Proceedings of International Conference on Tangible, Embedded, and Embodied Interaction (TEI'15)

[d.5] **Jeeeun Kim**, Abigale Stangl, & Tom Yeh, *Using LEGO to Model 3D Tactile Picture Books by Sighted Children for Blind Children*, In Proceedings of ACM symposium on Spatial user interaction (SUI'14)

[d.4] **Jeeeun Kim**, Michael Kasper, Tom Yeh, & Nikolas Correll, *SikuliBot: Automating Physical User Interface Using Images*, In Proceedings of Adjunct Annual Symposium on User Interface Software and Technology (UIST'14)

[d.3] Abigale Stangl, **Jeeeun Kim**, & Tom Yeh, *Technology to Support Emergent Literacy Skills in Young Children with Visual Impairments*, In Proceedings of Extended Abstracts of the 32nd Annual ACM Conference on Human Factors in Computing Systems (CHI'14)

[d.2] **Jeeeun Kim**, Abigale Stangl, Ann Eisenberg, & Tom Yeh, *Tactile Picture Books for Young Children with Visual Impairment*, International Conference on Tangible, Embedded, and Embodied Interaction (TEI'14)

[d.1] **Jeeeun Kim**, Abigale Stangl, Ann Eisenberg, & Tom Yeh, *Printing Tactile Picture Books for Blind children*, Extended Abstracts for Poster at ACM Grace Hopper Celebration 2013

WORKSHOP PAPERS & POSITION PAPERS (Oral Presentation)

[w.3] **Jeeeun Kim,** Abigale Stangl, & Tom Yeh. *Learning Underlying Principles of Physicalization by Tangible, Embodied, and Iterative Fabrication,* In Pedagogy and Physicalization: Designing Learning Activities around Physical Data Representations Workshop on DIS 2017, Edingburgh, UK

[w.2] **Jeeeun Kim,** *Co-Designer Robot: Envisioning Human-Fabrication Machine Interaction (HFI)* – In What Actors can Teach Robots Workshop on CHI 2017, Denver, CO

[w.1] **Jeeeun Kim**, Abigale Stangl, Ann Eisenberg, & Tom Yeh, *Evaluating Tactile User Experience with Tactile Picture Books for Children with Visual Impairment* - In "Touch Me" Tactile Evaluation Methods Workshop on CHI 2014, Toronto, Canada

PATENTS

[p.2] **Jeeeun Kim**, Chae Eun Oh, Heyjung Kim, *Method and system for distributing business application and content for mobile equipment using application store and wireless AP*, Patents, United States Patent and Trademark Office, USA (US Patent 9,092,812)

[p.1] **Jeeeun Kim**, Chae Eun Oh, Heyjung Kim, *Method and system for distributing business application and content for mobile equipment using application store and wireless AP*, Patents, Korea Patent and Trademark Office, Korea

AWARDS AND HONORS

2018	Adobe PhD Research Fellowship
	Special Recognition for the Excellent Review, CHI'18 Paper
2017	Rising Stars in EECS
	Special Recognition for the Excellent Review, UIST'17 Paper
	CRA-W Grad Cohort, CRA-W
2015	The Best User Experience Award, Hack CU, Boulder
2014	Research Community Development Award, University of Colorado Boulder
	Dean's Fellowship, University of Colorado Boulder
2013	Winner of US Entries, Finalist for Typhlo & Tactus Tactile Book Contest, The American Printing House for the Blind (APHB)
	Grace Hopper Scholarship, Anita Borg Institute for Women in Computing and Tech
	The 1st Place Pitch Cash Prize, Startup Summer (Startup Colorado)
	Outreach Award (Grant), Office for University Outreach, University of Colorado Boulder
2012	Beverly Sears Graduate Student Research Grant, Colorado Research Administration
	Dean's Fellowship, University of Colorado Boulder
2010	Presidential Award, the Best Contributor of the Year, Korea Telecom (KT Corp.), Korea
	Best Business Model Strategy Award, Korea Telecom (KT Corp.), Korea
	Chancellor's Recognition Award, Korea Aerospace University, Korea
2009	Best Undergrad Thesis (Capstone Project) Award, Korea Aerospace University, Korea
2007, 2009	Jeong-Seok Foundation Fellowship, Korea
2004 -2009	Scholarship for Excellent Academic Records, Korea Aerospace University, Korea
2007	International Scholarship, ISTAT Foundation, United States
2006	Honorary Alumnus, Yanbian University of Science and Technology, China
2005	Han-Jin Foundation Fellowship, Korea

TEACHING EXPERIENCE

2017- 2018 **Teaching Assistant, CS Department, University of Colorado Boulder**
- Teaching Principles in User Centered Design and Prototyping (CSCI3002: Human Centered Computing and Development)

2014- 2015 **Guest Lecturer, CU Science Discovery, Boulder**
- Teaching "Emergent Technology to develop emergent literacy for blind children, with 3D printed tactile picture books" in various summer science camps for K-12

2013- 2014 **Teaching Assistant, CS Department, University of Colorado Boulder**
- Teaching Introductory Linux and Python/Java/C++ (Computer Science 1: Programming)
- Teaching Introductory Linux and C++ (Introduction to Programming)

2013 Spr. **Grader, CS Department, University of Colorado Boulder, USA**
- Grading for *"Big Data-Human Computer Interaction"*(CSCI 7000)

Instructor, Korea Foreign Migrants Center, Seoul, Korea

2009-2010
- Lectured *"How to use Windows OS and MS Office"* for Immigrants Workers
- Lectured *"How to use Korean e-Commerce"* System

2009 **Afterschool Teacher, Dukyang Middle School, Gyunggi-do, Korea**
- Served after schooling program for middle school students

2005-2009 **Instructor, Intrusion Defense Team, Korea Aerospace University, Korea**
- Lectured for C/C++ for Data Structures and Network Programming

MENTORING EXPERIENCES

2015-2016 **Srinjita Bhaduri,** *"Audible Texture: Sensor-less Sound Generator on Tactile Pictures for Children with Visual Impairments"* Master's level Independent Study for two semesters

2015 Fall **Claudia Dauden Roquet,** *"3D Folded Printgami"* Visiting undergraduate student from Universidad La Salle (Spain), Balsells Mobility Scholarship Program (Result presented as a short paper at DIS'16 [c.3], received 1st place with honor for the undergrad dissertation)

Ellen Reynersen, "*Parametric 3D Modeling",* Undergraduate student from TAM (Technology, Arts, and Media) Major

2015 Summer **Lindsey Welch, Chantelle Humphries,** *"3D Printed braille"*
Dinah Bowman, Nueka Lo, "*Post-processing Techniques to Enhance Tactile Textures"* Summer Research Mentor Program (REM) for high school students.
(Results were invited and presented at the White House)

2014 Fall **Thomas M Erickson,** ***"****Haptic Feedback Development for 3D Printed Books"* Undergrad level Independent Study

The team of 4 freshmen in the College of Engineering. *"Designing Interactive Picture Books by Arduino and 3D Printing"* Planning and Designing the Integrated Teaching and Learning Lab project (part of GEEN1400, General Engineering Project class)

2014 Summer **Ian Char,** *"SikuliBot-Automating Physical Interface using Images"*, Undergraduate Discovery Learning Apprenticeship Scholarship Program (Result was demoed at UIST'14 [d.4])

INVITED TALKS

Adobe Research, Fabrication Strategy Meeting, San Francisco
"Describe Function for Fabrication" (Intern Project, Host: Wilmot Li)

HP, Immersive Experiences Lab, Palo Alto
"Intelligent 3D Printing" (Host: Tico Ballagas)

Seoul National University, Information Science Department, Seoul, Korea
"Explainable System for 3D Printing and Digital Fabrication" (Host: Hwajung Hong)

Ericsson Research, Santa Clara
"Collaborative AR for Remote Instructor and Learner" (Intern Project, Host:Alvin Jude)

Teen's Science Cafe, Denver, CO
"Designing Tactile Pictures with Craft Materials for 3D Printing"

INVITED EXHIBITIONS & WORKSHOPS

2018 **Exhibition,** Cooper Hewitt, Smithsonian Design Museum, New York, NY
As part of "Design for the Senses"

2017 **Demo**, ATLAS Research Showcase, ATLAS Institute, University of Colorado Boulder
"Kinemaker: Supporting Mechanical Design by Remixing Gearboxes and 3D Models"

Exhibition (Permanent), King Abdulaziz Center, Riyadh, Saudi Arabia
As part of "World Culture Exhibition"

2016 **Exhibition**, Lyons Regional Library, Lyons, CO
"Crowd Sourced 3D Printed Tactile Pictures – Harold and the Purple Crayon"

2015 **Workshop**, CU Science Discovery Summer Camp, Boulder, CO
"Designing 3D Pictures like Building Web Page"

Workshop, CU EFRI REM Project, Boulder, CO
"Designing 3D Printed Tactile Picture Books for Children with Visual Impairments"

Workshop, Family IdeaLAB, Denver Public Library, Denver, CO
"Part 1: Tangible 3D Design with Craft Materials"
"Part 2: Programming 3D Pictures"

2014 **Exhibition**, FoST(Future of Story Telling), New York, NY
Part of "Reinventing the Way Stories Are Told"

Demo, Computer Science Education Week, Boulder, CO
"Emergent Technologies with 3D Printing in Classroom"

Demo, CU Home Coming Day, Boulder, CO
"Tactile Picture Books to Enhance Reading Experience for Blind Children"

Exhibition, Gemmille Engineering Library, University of Colorado, Boulder, CO
"Crowd sourced 3D Printed Tactile Pictures – Harold and the Purple Crayon"

Workshop, Colorado Talking Book Library, Denver, CO
"Design Tactile Map to Guide People with Visual Impairments"

Workshop (3 Groups), Teen's Science Cafe, Denver, CO
"Designing Tactile Pictures with Craft Materials for 3D Printing"

MEDIA COVERAGE (Selected)

3DPrint.com, 3D Printed Tactile Books Allow Visually Impaired Children to Experience Stories

MetaTrend (Korea), Tangible Context *손으로 전달되는 컨텍스트* (Vol.57)

Masters of Media (Netherland), 3D printing: a tool in revolutionizing the books for visually impaired children

Bookaholic (Romania), Tactile Picture Books: *proiect fain pentru copiii cu afecţiuni oculare*

DNA India (India), Picture books for the visually-impaired get a 3D boost

New Scientist, 3D-printed books make pictures real for blind children (Issue 2984)

A book and a good lie down (Australia), A Few Stories for Children's Books Week

NPR: National Public Radio, Beyond Braille: 3-D Printed Books For The Blind

Women Makes Waves (UK), The Tactile Picture Books Project. Bringing Books Alive For Visually-Impaired Children

DailyMail (UK), Now you can FEEL the Cat in the Hat: Researchers use 3D printing to help blind children enjoy classic bedtime stories

NewsWeek, 3-D Printing Enables Visually Impaired Children to Experience the World of Literary Classics

3D Imprimalia (Spain), *Libros táctiles impresos en 3D para niños ciegos*

Mashable, Imagining a New Way to Read, One 3D-Printed Book at a Time

DailyCamera, CU-Boulder Researchers Create Children's books with 3-D printing

Pink Giraffe (Russia), Printed on a three dimensional printer. *Книги «Розового Жирафа» напечатали на трехмерном принтере. Это революция в образовании!*

3ders, 3D Printed Tactile Picture Books for Visually Impaired Kids

ScienceDaily, Picture books for visually impaired kids go 3-D

3DPrint.com, 3D Printed Tactile Books For Blind Children

9 News, CU Creates 3D Book Program for Blind Children

Magazine of Artikel A-Welle (Switzerland), Is There a Really User-Friendly Ticket Machine? *Gibt es den benutzerfreudlichen Billettautomaten wirklich?*

ColoradoDaily, CU-Boulder students team with Swiss university on transportation project

SERVICE

Associate Chair, SIGCHI Human Factors in Computing (CHI'18), *Late Breaking Work* program committee

Faculty Search Committee, PhD Student member (2017)

Paper Review, CHI (2014-2018), UIST (2013-2018), TEI (2014-2018), CSCW (2015-2017), DIS (2014-2018), C&C (2015/2017), IDC (2014-2017), CHI Play (2014-2016), Mobile HCI (2014-2016), TVX(2014-2016), ISS (Formally ITS, 2014)

Guest Editor, ODYSSEY Magazine: Adventures in Science
(Special Issue on *"3D Printing in the World"*. Feb.2015)

Consulting Editor, Android SDK Reference Book (ISBN: 9788909189026)

Student Volunteer, CHI 2015/2017, IDC 2015, NAGC 2012, Onnuri Campaign (Teaching Information Technology for Old Citizens) 2009 at Korea Communication Commission

Club President, Intrusion Defense Team (IDT), Korea Aerospace University, Korea

RELEVANT SKILLS

3D Design (SketchUp, Maya, Rhino, Open(J)SCAD, 123D Suites), 3D Printing (FDM, SLS) & Scanning, Laser Cutting, Circuit Design and Microcontrollers, Silhouette/Vinyl Cutting, Digital Embroidery, Adobe Image Suite (Photoshop, Illustrator, Premier, InDesign)

REFERENCES

Tom Yeh
tom.yeh@colorado.edu
Assistant Professor
University of Colorado Boulder
DLC173, 430 UCB, Boulder, CO 80302

Mark D Gross
mdgross@colorado.edu
Professor
Director of ATLAS Institute
University of Colorado Boulder

Jennifer Mankoff
jmankoff@cs.washington.edu
Richard E. Ladner Professor
University of Washington
Office 580, Paul G. Allen School of Computer Science & Engineering

Daniel Ashbrook
dan@di.ku.dk
Associate Professor
University of Copenhagen
Copenhagen, 1165, Denmark