

Matthew K. Hong

PhD Candidate

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Research Interests

My research interests lie at the intersection of Human-Computer Interaction and Health Informatics. I design collaborative mHealth systems to foster communication between the patient, family caregiver and clinician.

Education

- 2014 - Present **PhD, Human-Centered Computing**, Georgia Institute of Technology.
Advisor: Lauren Wilcox
- 2014 **MHCI, Human-Computer Interaction**, Carnegie Mellon University.
- 2012 **BSc, Cognitive Science**, University of California, San Diego.
Thesis Advisor: James D. Hollan

Experience

- Jul 2016 **Summer Institute Trainee**, *Health Data Exploration Project*, La Jolla, CA.
Participated in a one week institute where PhD students receive academic training focusing on personal health data.
- Jan 2014 - Aug 2014 **Research Lead**, *Boeing-CMU Capstone Project*, Carnegie Mellon University, Pittsburgh, PA.
Conducted research and designed new methods to streamline communication on the 737 line at the Boeing Renton factory, improving efficiency and safety. See <http://hciresearch4.hcii.cs.cmu.edu/M-HCI/2014/Boeing/>.
- Oct 2012 - Aug 2013 **User Experience Consultant**, *Private Consulting*, San Diego, CA.
Consulted company executives during product development stage for upcoming dental patient record management application. See <http://www.tab32.com/>.
Consulted company executives during product development stage for upcoming smart cooking appliance. Some of the initial UX research efforts that I led influenced early design decisions of the product form factor and app user interface. See <https://cindercooks.com/>.
- Jun 2012 - Oct 2012 **Research Assistant**, *Department of Biomedical Informatics*, UCSD School of Medicine, La Jolla, CA.
Conducted usability studies, designed and evaluated prototype user interface for Schema Builder, an end-user application for clinicians to define custom NLP schemas.

Publications

Refereed Journal Publications Jessica S Ancker, Marianne Sharko, **Matthew K. Hong**, Hannah Mitchell, and Lauren Wilcox. Should Parents See Their Teen's Medical Record? Asking About The Effect on Adolescent-Doctor Communication Changes Attitudes. *Journal of American Informatics Association (JAMIA 2018)*.

Marianne Sharko, Lauren Wilcox, **Matthew K. Hong**, and Jessica S Ancker. Variability in Adolescent Portal Privacy Features: How the Unique Privacy Needs of the Adolescent Patient Create a Complex Decision-Making Process. *Journal of American Informatics Association (JAMIA 2018)*. (editor's choice)

Refereed Conference Proceedings Lauren Wilcox, Marianne Sharko, **Matthew K. Hong**, Julie Hollberg, and Jessica S Ancker. The Need for Guidance and Consistency in Adolescent Privacy Policies: A Survey of CMIOs. *Proceedings of the 2018 AMIA Annual Symposium (AMIA 2018)*, San Francisco, CA, USA, 2018.

Udaya Lakshmi, **Matthew K. Hong**, and Lauren Wilcox. Integrating Patient-Generated Observations of Daily Living into Pediatric Cancer Care: A Formative User Interface Design Study. *Proceedings of the Sixth IEEE International Conference on Healthcare Informatics (ICHI 2018)*, New York City, NY, USA, 2018.

Matthew K. Hong, Udaya Lakshmi, Thomas A. Olson, and Lauren Wilcox. Visual ODLs: Co-Designing Patient-Generated Observations of Daily Living to Support Data-Driven Conversations in Pediatric Care. *Proceedings of the 36th Annual ACM Conference on Human Factors in Computing Systems (CHI 2018)*, Montreal, Canada, 2018. (25.7% acceptance rate)

Matthew K. Hong, Clayton Feustel, Meeshu Agnihotri, Max Silverman, Stephen F. Simoneaux, and Lauren Wilcox. Supporting Families in Reviewing and Communicating about Radiology Imaging Studies. *Proceedings of the 35th Annual ACM Conference on Human Factors in Computing Systems (CHI 2017)*, Denver, CO, USA, 2017. (25% acceptance rate)

Matthew K. Hong, Lauren Wilcox, Clayton Feustel, Karen Wasilewski-Masker, Thomas A. Olson, and Stephen F. Simoneaux. Adolescent and Caregiver use of a Tethered Personal Health Record System. *Proceedings of the 2016 AMIA Annual Symposium (AMIA 2016)*, Chicago, IL, USA, 2016.

Matthew K. Hong, Lauren Wilcox, Daniel Machado, Thomas A. Olson, and Stephen F. Simoneaux. Care Partnerships: Toward Technology to Support Teens' Participation in Their Health Care. *Proceedings of the 34th Annual ACM Conference on Human Factors in Computing Systems (CHI 2016)*, San Jose, CA, USA, 2016. (23.4% acceptance rate)

Matthew K. Hong, Anne Marie Piper, Nadir Weibel, Simon Olberding, and James D. Hollan. Microanalysis of Active Reading Behavior to Inform Design of Interactive Desktop Workspaces. *Proceedings of the 2012 ACM International Conference on Interactive Tabletops and Surfaces (ITS 2012)*, Boston, MA, USA, 2012. (29% acceptance rate)

Refereed Poster/Workshop Proceedings Jessica S Ancker, Marianne Sharko, **Matthew K. Hong**, Hannah Mitchell, and Lauren Wilcox. Should parents see teen medical records? Attitudes change when people are prompted to think about risky adolescent behaviors. *Proceedings of the 2018 AMIA Annual Symposium (AMIA 2018)*, San Francisco, CA, USA, 2018.

Matthew K. Hong, Udaya Lakshmi, and Lauren Wilcox. Just-in-Time Design: In Situ Methods for Capturing and Articulating Adolescents' Illness Experiences. *Workshop on Interactive Systems in Health Care (WISH 2017)*, Washington, DC, USA, 2017.

Marianne Sharko, Lauren Wilcox, **Matthew K. Hong**, and Jessica S Ancker. The Variation in Patient Portal Access for Adolescents in the United States: How Different Medical Centers Manage their Adolescent Access. *Proceedings of the 2017 AMIA Annual Symposium (AMIA 2017)*, Washington, DC, USA, 2017.

Eunji Chong, Jaehoon Lee, **Matthew K. Hong**, and James Rehg. Scalable Image-based Search-and-Discovery. *Proceedings of the 35th Annual ACM Conference on Human Factors in Computing Systems (CHI 2017)*, Denver, CO, USA, 2017.

Matthew K. Hong and Lauren Wilcox. Care Partnerships: Toward Technology to Support Teens' Participation in Their Health Care (Research Highlight). *Workshop on Interactive Systems in Health Care (WISH 2016)*, San Jose, CA, USA, 2016.

Yang Liu, Melissa Tharp, **Matthew K. Hong**, Harry Hochheiser, and Wendy W. Chapman. Schema Builder: A Web-based User Interface for Authoring and Sharing Natural-Language Processing Schemas. *Proceedings of the 2013 AMIA Annual Symposium (AMIA 2013)*, Washington, DC, USA, 2013.

Industry/Technical Reports **Matthew K. Hong**, Fonda Chen, Scott Chiu, Emily Danchik, and Chris Wang. Contextualizing Communication at the Boeing Renton Factory. *Spring Research Report 2014 (Boeing-CMU Capstone Project)*, Pittsburgh, PA, USA, 2014.

Matthew K. Hong, Fonda Chen, Scott Chiu, Emily Danchik, and Chris Wang. Echo: Fostering Connection at the Boeing Renton Factory. *Summer Design Report 2014 (Boeing-CMU Capstone Project)*, Pittsburgh, PA, USA, 2014.

Teaching

Spring 2018 **Graduate Teaching Assistant**, *Georgia Institute of Technology*, College of Computing. User Interface Design (Lauren Wilcox).

Fall 2017 **Guest Lecturer**, *Georgia Institute of Technology*, College of Computing. Personal Health Informatics. "Designing Health Information Technologies to Engage Families in Data-Driven Medical Communication"(Lauren Wilcox).

Spring 2017 **Graduate Teaching Assistant**, *Georgia Institute of Technology*, College of Computing. Issues in Human-Centered Computing (Betsy DiSalvo).

Spring 2016 **Graduate Teaching Assistant**, *Georgia Institute of Technology*, College of Computing. User Interface Design (Lauren Wilcox).

Summer S1 2014 **Graduate Teaching Assistant**, *Carnegie Mellon University*, School of Computer Science. Human-Computer Interaction for Technology Executives (Brad Myers).

Spring 2014 **Graduate Teaching Assistant**, *Carnegie Mellon University*, School of Computer Science. Entrepreneurship and Innovation in Technology (Edward Engler).

Winter 2012 **Undergraduate Teaching Assistant**, *UC San Diego*, Department of Cognitive Science. Cognitive Design Studio (James D. Hollan).

Invited Talks

Summer 2018 **Georgia Tech**, NSF REU Civic Data Science Seminar.

Mentoring

- Fall 2018 **Xuejin Tan**, M.S. Human-Computer Interaction (C), Georgia Tech.
- Spring 2018 **Alan Lu**, B.S.(C) Computer Science, Georgia Tech.
- 2017-2018 **Chaitanya Bapat**, M.S. Computer Science-Machine Learning, Georgia Tech. Now @ Amazon
- Spring 2017 **Udaya Lakshmi**, M.S. Human-Computer Interaction, Georgia Tech. Now @ GT HCC PhD program
- 2016-2017 **Meeshu Agnihotri**, M.S. Human-Computer Interaction, Georgia Tech
- 2016-2017 **Max Silverman**, M.S. Human-Computer Interaction, Georgia Tech. Now @ Yahoo
- Fall 2016 **Alex Ryan**, M.S. Human-Computer Interaction, Georgia Tech.
- 2015-2016 **Clayton Feustel**, M.S. Computer Science-Human-Computer Interaction, Georgia Tech. Now @ GT CS PhD program
- 2014-2015 **Daniel Machado**, M.S. Human-Computer Interaction, Georgia Tech. Now @ Twitter
- Fall 2014 **Meghna Mehta**, M.S. Human-Computer Interaction, Georgia Tech

Service

- Peer-review **CHI**: 2014-
CSCW: 2015-
Pervasive Health: 2015-
- Volunteering **Conference Student Volunteer**. Pervasive Health 2012, CHI 2015
Workshop Organizer: Workshop on Interactive Systems in Healthcare (WISH 2017)
- Georgia Tech **President**. College of Computing, Korean Student Association (KSA)
- UCSD **Founding Member**. User Experience San Diego (UXSD)
Officer. Korean-American Scientists and Engineers Association (KSEA)

Awards

- 2012 **Department Honors with Distinction**. University of California, San Diego
- 2010 - 2012 **Provost Honors List**. University of California, San Diego

Skills

- User Research Contextual Inquiry, Design Probe, Ecological Momentary Assessment, Ethnography, Focus Groups, Heuristic Evaluation, Interview, Participatory Design, Survey, Usability Testing, Card Sorting, Thinkaloud Protocol
- Data Analysis Competitive Analysis, Content Analysis, Usage Log Analysis
- Prototyping Tools Sketch, Adobe Illustrator, FramerJS
- Other Tools Python, R Studio, R, REDCap, Sublime Text

References

Advisor **Lauren G. Wilcox**, Assistant Professor
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Dissertation Committee **Beth Mynatt**, Professor
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Mentors **James D. Hollan**, Professor
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Jodi Forlizzi, Professor
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Anne Marie Piper, Assistant Professor
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Nadir Weibel, Research Assistant Professor
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