

Cole Gleason

Ph.D. Student at CMU Human-Computer Interaction Institute
826 N Euclid Ave, Pittsburgh PA 15206

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cgleason@cs.cmu.edu
colegleason.com

Education

- **Carnegie Mellon University** Pittsburgh, PA
Ph.D., Human-computer Interaction August 2015 - Present
 - Creating blind assistive tech with computer vision and crowdsourcing.
 - Advised by Jeffrey Bigham and Kris Kitani as part of the CMU Accessibility Lab
 - Relevant Coursework: Applied Research Methods, Computer Vision, Cognitive Perspective in HCI, Machine Learning
- **University of Illinois** Urbana-Champaign, IL
B.S, Computer Science August 2011 - May 2015
 - Advised by Karrie Karahalios as part of the Social Spaces Group
 - Chair of the largest Association for Computing Machinery student chapter in the U.S.
 - Chair of 2013 Reflections | Projections technology conference.
 - Relevant Coursework: Mobile Augmented Reality, Virtual Reality, Machine Learning for Signal Processing, Cognitive Science

Peer-Reviewed Publications

- **Cole Gleason**, Alexander J. Fiannaca, Melanie Kneisel, Edward Cutrell, and Meredith Ringel Morris. 2018. FootNotes: Geo-referenced Audio Annotations for Nonvisual Exploration. *IMWUT 2018*
- **Cole Gleason**, Dragan Ahmetovic, Saiph Savage, Carlos Toxtli, Carl Posthuma, Chieko Asakawa, Kris M. Kitani, and Jeffrey P. Bigham. 2018. Crowdsourcing the Installation and Maintenance of Indoor Localization Infrastructure to Support Blind Navigation. *IMWUT 2018*
- Dragan Ahmetovic, Masayuki Murata, **Cole Gleason**, Erin Brady, Hironobu Takagi, Kris Kitani, and Chieko Asakawa. 2017. Achieving Practical and Accurate Indoor Navigation for People with Visual Impairments. *Web for All 2017. Best Paper*
- Dragan Ahmetovic, **Cole Gleason**, Chengxiong Ruan, Kris Kitani, Hironobu Takagi, and Chieko Asakawa. 2016. NavCog: a navigational cognitive assistant for the blind. *MobileHCI 2016*.

Posters, Demos, and Other Publications

- **Cole Gleason** 2017. Crowdsourcing the Installation and Maintenance of Indoor Navigation Infrastructure. *ASSETS 2017 Student Research Competition*
- **Cole Gleason**, Dragan Ahmetovic, Carlos Toxtli, Saiph Savage, Jeffrey P. Bigham, and Chieko Asakawa. 2017. LuzDeploy: A Collective Action System for Installing Navigation Infrastructure for Blind People. *W4A 2017*

- **Cole Gleason**, Anhong Guo, Gierad Laput, Kris Kitani, and Jeffrey P. Bigham. 2016. VizMap: Accessible Visual Information Through Crowdsourced Map Reconstruction. *ASSETS 2016*
- Jeffrey P. Bigham, Erin L. Brady, **Cole Gleason**, Anhong Guo, and David A. Shamma. 2016. An Uninteresting Tour Through Why Our Research Papers Aren't Accessible. *alt.chi 2016*
- Dragan Ahmetovic, **Cole Gleason**, Kris M. Kitani, Hironobu Takagi, and Chieko Asakawa. 2016. NavCog: turn-by-turn smartphone navigation assistant for people with visual impairments or blindness. *W4A 2016*

Patents

- Yigal Dan Rubinstein, Abhishek Doshi, Reshma Khilnani Ebberson, and **Cole Gleason**. 2014. Associating an indication of user emotional reaction with content items presented by a social networking system. U.S. Patent 8,918,339, filed March 15, 2013 and issued December 23, 2014.

Selected Industry Experience

- **Microsoft Research** Redmond, WA
Research Intern *May 2017 - August 2017*
 - Developed tool, FootNotes, as part of the Soundscape project to help people with vision impairments explore the physical world.
 - Conducted user studies with blind participants and published a paper on the project in IMWUT 2018.
- **Facebook Inc.** Menlo Park, CA
Software Engineering Intern *June 2015 - August 2015*
 - Created and deployed user controls for the On This Day product.
 - Experimented with object recognition in photos to improve ranking.

Teaching Experience

- **Programming User Interfaces** Pittsburgh, PA
Teaching Assistant *August 2018 - Present*
 - Instruct lab sections on methods to design and create prototypes of software tools.
- **Accessibility Project** Pittsburgh, PA
Team Mentor *January 2018 - May 2018*
 - Lead project team of students to interview and work with clients.
 - Developed prototype system for Blind & Vision Rehabilitation Services of Pittsburgh to track and analyze progress of clients with multiple disabilities in their employment training program.
- **User-Centered Research & Evaluation** Pittsburgh, PA
Teaching Assistant *August 2016 - December 2016*
 - Lead discussion sections on using user-oriented research methods.
 - Assisted and graded students on team-focused projects.

Invited Talks

- **ACM@UIC Flourish Conference** Chicago, IL
Blockchain as a Backbone *April 2014*
 - Delivered a talk on the importance of the technology underlying Bitcoin in distributed trustless peer-to-peer systems.

Awards & Honors

ACM Student Research Competition - Graduate Student Finalist	2017
NSF Graduate Research Fellowship Program - Fellow	2017
NSF Graduate Research Fellowship Program - Honorable Mention	2016
The Paciello Group - Web Accessibility Challenge Delegates' Award	2016
IBM - Web for All People with Disabilities Award	2016
Daniel L. Slotnick Scholarship	2014