

#### PhD Student · Human-Computer Interaction

Carnegie Mellon University, HCII | 5000 Forbes Ave. | Pittsburgh, PA | 15217

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## **Education**

#### **Carnegie Mellon University**

Pittsburgh, PA

PhD in Human-Computer Interaction

Aug. 2015 - PRESENT

- Human Computer Interaction Institute | School of Computer Science
- Advisors: Dr. Jessica Hammer and Dr. Geoff Kaufman

Stanford University Stanford, CA

M.S. IN SYMBOLIC SYSTEMS

Jun. 2014 - Jun. 2015

• Symbolic Systems Program | School of Humanities and Sciences

• Advisor: Dr. Michael Bernstein

Stanford University Stanford, CA

B.S. IN SYMBOLIC SYSTEMS

Sept. 2010 - Jun. 2014

- Symbolic Systems Program | School of Humanities and Sciences
  Minor: Asian American Studies
- Advisor: Dr. Michael Bernstein

## Honors & Awards \_\_\_\_

2016 Best Student Non-Digital Game, "Outbreak", Meaningful Play 2016

People's Choice Game, "Outbreak", Meaningful Play 2016

Graduate Student Assembly/Provost Conference Funds, Carnegie Mellon University

2014 Best Paper, ACM UIST 2014

B.S. Conferred with Honors, Stanford University

#### **Publications**

#### PEER-REVIEWED FULL PAPERS

- [1] **To, A.**, Fath, E., Zhang, E., Ali, S., Kildunne, C., Fan, A., Hammer, J., Kaufman, G. (2016). Tandem Transformational Game Design: A Game Design Process Case Study. In Proc. Meaningful Play 2016.
- **To, A.**, Ali, S., Kaufman, G., Hammer, J. (2016). Integrating Curiosity and Uncertainty in Game Design. In Proc. DiGRA/FDG 2016.
- [3] Nebeling, M., **To, A.**, Guo, A., de Freitas, A., Teevan, J., Dow, S., Bigham, J. (2016). WearWrite: Crowd-Assisted Writing from Smartwatches. In Proc. of the 28th annual ACM symposium on Human Factors in Computing Systems (CHI '16).
- [4] Retelny, D., Robaszkiewicz, S., **To, A.**, Lasecki, W., Patel, J., Doshi, T., Valentine, M., Bernstein, M. (2014). Expert Crowdsourcing with Flash Teams. In Proc. of the 27th annual ACM symposium on User Interface Software and Technology (UIST '14). **Best Paper Award**

### Works-in-Progress, Posters

- [1] **To, A.**, Fan, A., Kildunne, C., Zhang, E., Kaufman, G., Hammer, J. (2016). Treehouse Dreams: A Game-Based Method for Eliciting Interview Data from Children. In Proc. CHI Play 2016.
- [2] Retelny, D., Robaszkiewicz, S., **To, A.**, Bernstein, M. (2013). Enabling Expert Crowdsourcing with Flash Teams. CrowdConf 2013.

## **Experience**

#### **Carnegie Mellon University HCII**

Pittsburgh, PA

PhD Student / Research Assistant

Aug. 2015 - Present

- Advisors: Jessica Hammer and Geoff Kaufman
- SCIPR Project designing, and researching game-based interventions for marginalized science identity middle school students

#### **Carnegie Mellon University HCII**

Pittsburgh, PA

RESEARCH ASSISTANT

July. 2015 - Sept. 2015

- With: Steven Dow, Jeff Bigham, Michael Nebeling
- WearWrite explore shepherding the crowd through a smart watch. Contributed development to front end interface, design lab protocol, run study, and write paper submission.

#### **Stanford University HCI Group**

Stanford, CA

RESEARCH ASSISTANT

Jun. 2014 - Jun. 2015

- With: Michael Bernstein, Daniela Retelny, Negar Rahmati, Tulsee Doshi
- Flash Organizations Scaling up the team capabilities of the expert crowd. Combining HCI and organizational behavior research to examine how the online expert crowd can come together like an org. More work developing our online platform, Foundry, as well as developing and testing of theoretical framework.

#### **Stanford University HCI Group**

Stanford, CA

CURIS RESEARCH INTERN

Jun. 2013 - Sept. 2013

- With: Michael Bernstein, Daniela Retelny, Sébastien Robaszkiewicz
- Flash Teams Creating lightweight modular team structures to guide teams of expert crowd workers. Developed an online platform, Foundry, for the authorship and run-time coordination of these teams.

### **Stanford University Symbolic Systems Program**

Stanford, CA

RESEARCH INTERN

Jun. 2012 - Sept. 2012

- With: Todd Davies, Clay Carson
- Work jointly with the Symbolic Systems Program and the Martin Luther King Jr. Institute. Designing a collaborative history online platform to engage a wide audience with digital history as well as designing research studies.

## **Teaching Experience**

### Teaching Assistant, Minds and Machines (SymSys 100)

SYMBOLIC SYSTEMS PROGRAM AT STANFORD UNIVERSITY

2014

Lead discussion section of the class, contributed to section curriculum and writing homework assignments, held office hours, and graded assignments.

#### **Course Assistant, Human-Computer Interaction Seminar (CS 547)**

COMPUTER SCIENCE DEPARTMENT AT STANFORD UNIVERSITY

2014

Organized seminar, plan schedule for speaker, manage script to record attendance.

## **Workshops and Demos**

- \*Workshops are non-archival, presented in the form of posters. Demos showcase live working prototypes to venue attendees.
  - [1] Nebeling, M., **To, A.**, Guo, A., de Freitas, A., Teevan, J., Dow, S., Bigham, J. 2016. WearWrite: Crowd-Assisted Writing from Smartwatches. In Proc. CHI '16 Productivity Decomposed Workshop.
  - [2] Nebeling, M., Guo, A., **To, A.**, Dow, S., Teevan, J., Bigham, J. 2015. WearWrite: Orchestrating the Crowd to Complete Complex Tasks from Wearables. In Proc. UIST '15 Demos.

# Relevant Coursework

CARNEGIE MELLON UNIVERSITY **05771** - HCI Process & Theory

 ${\bf 05816}$  - Applied Research Methods

05818 - Design Educational Games

#### STANFORD UNIVERSITY

CS 107 - Computer Organization and Systems

 $\mathbf{CS}\ \mathbf{109}$  - Intro to Probability for Computer Scientists

CS 110 - Computer Systems

CS 142 - Web Applications

CS 154 - Intro to Automata and Complexity Theory

CS 196 - Computer Consulting

 $\mathbf{CS}$ 147 - Intro to Human-Computer Interaction Design

Comm 120W - Digital Media in Society

CS 376 - Research Topics in Human-Computer Interaction

SYMSYS 245 - Cognition in Interaction Design

PoliSci 121L - Racial-Ethnic Politics in the U.S.

CSRE 196C - Intro to Comparative Studies in Race and Ethnicity

HIST 265 - Writing Asian American History

SYMSYS 201 - ICT, Society, and Democracy

SYMSYS 203 - Cognitive Science Perspectives on Conflict, Violence, Peace, and Justice

## Relevant Skills \_

**Programming** Javascript, HTML5, CSS, jQuery, Twitter Bootstrap, C/C++, D3

**Research Methods** Interviewing, Grounded Theory, Controlled Lab Experiments, Think Aloud Study Protocols

Studies with Children, Ethnomethodology, Surveys

**User-Centered Design** Paper Prototyping, Rapid Iterative Prototyping, UI Wireframing, Heuristic Evaluation, Storyboards

Playtesting, Cognitive Task Analysis, Transformational Game Design, Playtesting

### Media

HCII News & Events, HCII & ETC Student Game Brings Home Best Student Game and People's

Choice Award

 $\textbf{Stanford News}, \ \text{Stanford's Symbolic Systems program bridges the gap b/t humanity and } \\ 08/2014$ 

technology

08/2014 **Stanford News**, Stanford team looks to take crowdsourcing to a whole new level