

# CAITLIN H. C. HOLMAN

## Curriculum Vitae

The University of Michigan  
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### CURRENT POSITIONS

**September 2012-present, Graduate Student Research Assistant**, LED Lab, University of Michigan, Ann Arbor, MI.

**January 2012-present, Co-Founder & Project Lead**, GradeCraft, University of Michigan, Ann Arbor, MI

### EDUCATION

**Ph.D., 2017 (expected), University of Michigan**

*Information Science*. Advised by Barry Fishman & Stephanie Teasley

**M.S.I., 2011, University of Michigan**

*Tailored Degree specializing in Learning Technology*. Advisor: Charles Severance

**B.A., 2006, Magna cum laude, University of Maine**

*International Affairs*. Advisor: Michael Grillo

### HONORS & AWARDS

2014 Yahoo! Teaching with Technology Award Recipient

2013 Learning Analytics Junior Fellow

2013 Computer Research Association's Committee on the Status of Women in Computing (CRA-W) Graduate Cohort Member

2012 Shuttleworth Foundation Flash Grant Recipient

2011 CHI Student Design Competition Finalist

2011 iDesign Competition Winner

2009 University of Michigan School of Information Merit Scholarship Award

2009 Ann Arbor Association for Women in Computing Scholarship Recipient

### REFEREED CONFERENCE PROCEEDINGS

Holman, C., Aguilar, S., Levick, A., Stern, J., Plummer, B., Fishman, B. (2015), Planning For Success: How Students Use a Grade Prediction Tool to Win Their Classes. Paper presented at *Fifth Conference on Learning Analytics and Knowledge*. (Leuven, Belgium, April 16-20, 2015), LAK '15.

Holman, C., Aguilar, S., Fishman, B., Carr, M., Fiesta, M., Levick, A., Molnar, S., Rocco, L. (2014), GradeCraft a Working Example. Paper presented at *Games+Learning+Society*. (Madison, WI, USA, 2014), GLS '14.

Aguilar S., Fishman, B., Holman, C. (2014), Multiple Paths, Same Goal: Exploring the Motivational Pathways of Two Distinct Game-Inspired University Course Designs. Paper presented at *Games+Learning+Society 10*. (Madison, WI, USA, 2014), GLS '14.

Aguilar, S., Karabenick, S., Fishman, B., Holman, C. (2014), Supporting Students' Autonomy through Gameful Course Design. Poster presented at the *International Conference on Motivation* (Helsinki, Finland, June 12-14, 2014), ICM '14.

Aguilar, S., Fishman, B., Holman, C. (2014), Empirical Evidence in Support of Gameful Learning Environments. Paper presented *Annual Meeting of the American Educational Research Association* (Philadelphia, PA, USA, April 3-7, 2014), GLS '14.

Holman, C., Aguilar, S., Fishman, B. (2013). Designing a Game-Inspired Learning Management System. Paper presented at *Games+Learning+Society Conference 9.0* (Madison, WI, USA, June 8-12, 2013), GLS '13.

Aguilar, S., Fishman, B., Holman, C. (2013). Games+Learning+Society Conference 9.0: Leveling-Up: Evolving Game-Inspired University Course Design. Paper presented at *Games+Learning+Society Conference 9.0* (Madison, WI, USA, June 8-12, 2013), GLS '13.

Deterding, S., Fanelli, K., Vattel, L., Higgen, T., Schenke, K., Sheldon, L., Ewing, C., Fishman, B., Aguilar, S., Holman, C. (2013). Beyond Badges & Points: Gameful Assessment Systems for Engagement in Formal Education. Symposium at *Games+Learning+Society Conference 9.0* (Madison, WI, USA, June 8-12, 2013), GLS '13.

Holman, C., Aguilar, S., & Fishman, B. (2013). GradeCraft: what can we learn from a game-inspired learning management system? *Third Conference on Learning Analytics and Knowledge* (Leuven, Belgium, April 8-12, 2013), LAK '13.

Holman, C., Leibrock, J., Jimenez, J., Greitzer, D., and Haynes, T. (2011). Lingua: Cultural Exchange Through Language Partnerships. In *Proceedings of the 29th international Conference Extended Abstracts on Human Factors in Computing Systems* (Vancouver, BC, May 7-12, 2011). CHI '11. ACM, New York, NY, 2835-2840.

## PROJECTS

### **GradeCraft – [gradecraft.com](http://gradecraft.com) – 2011-current**

Designed and developed a gameful learning management system, including a grade visualizer and prediction tool, a configurable leaderboard system, a badge system, and various assignment management and grading tools. Currently running a 15-course pilot at the University of Michigan, with the goal of making the application available to anyone interested in gameful learning Summer 2016.

### **Lingua – [lingua.caitholman.com](http://lingua.caitholman.com) – 2010-2011**

*Finalist, CHI 2011 Student Design Competition*

Employed an iterative user-centered design process to design an interactive language-exchange website  
Led group in research and paper writing phases

### **CataLIST – [catalist.caitholman.com](http://catalist.caitholman.com) – 2011**

*Winner of the University of Michigan Libraries iDesign Competition, 2011*

Brainstormed ways to connect patrons to relevant but unknown material at the library  
Developed a concept wherein cross-referenced course syllabi would naturally connect known and new material  
Designed and developed a working model

## TEACHING EXPERIENCE

### **2010-13 • Google App Engine & Python Tutor**

*School of Information, University of Michigan – Ann Arbor, MI*

Tutored students, including two with significant learning disabilities, in Python and Google App Engine  
Students all successfully completed their coursework and received excellent marks

### **Summer 2012: Internet History, Technology, and Security Teaching Assistant**

*Coursera at the University of Michigan – Ann Arbor, MI*

Reviewed course materials and developed weekly interactive assessments

### **Fall 2011: Database Applications Teaching Assistant**

*School of Information, University of Michigan – Ann Arbor, MI*

Developed projects-based curriculum and accompanying assignments for a graduate level class  
Formed student groups based on complementary skill sets and interests  
Graded weekly homework assignments, midterm and final exams, and assessed student participation  
Tutored students individually as needed in PHP, MySQL, and database design  
Advised students on project management strategies and effective team work

### **Winter 2011: Videogames & Learning Teaching Assistant**

*School of Education, University of Michigan – Ann Arbor, MI*

Led an eight-student team of undergraduate students through the semester-long course, including leading weekly discussion sessions, grading semester papers, and coordinating team competitions

## **Fall 2010: Networked Computing Teaching Assistant**

*School of Information, University of Michigan – Ann Arbor, MI*

Taught two discussion sections of 20 graduate students each introductory Python, history of the Internet, elementary web development, and database construction

Graded weekly homework assignments, midterm and final exams, and assessed student participation

## RESEARCH EXPERIENCE

### **Fall 2012 – current: LED Lab member**

*University of Michigan – Ann Arbor, MI*

Designed and ran surveys on student motivation in gameful classes

Completed user-testing on *GradeCraft*

Managed lab website and open source code repository

Performed analysis comparing survey results with course achievement and system behavior

## SERVICE ACTIVITIES

**2013:** Doctoral Executive Committee Member, *School of Information, University of Michigan*

**2011:** Curriculum Committee Member, *School of Information, University of Michigan*

## PROFESSIONAL EXPERIENCE

### **2011: Usability Intern**

*MATRIX: The Center for the Arts, Letters, and Social Sciences – East Lansing, MI – 2011*

Performed usability studies on three of MATRIX's project websites to assess their current design practices and establish guidelines regarding best practices

Assessed historians' datasets to provide database recommendations for the Atlantic Slaves Database Network

Managed communication between the primary investigators of the Atlantic Slaves Database Network and the project developers

Reviewed current best practices in interfaces displaying historical datasets

Provided database and visualization guidelines for MATRIX to follow as they construct the Atlantic Slaves Database Network

### **2009-10: Database Architect**

*Bentley Historical Library - Ann Arbor, MI*

Designed and implemented the consolidation of multiple outdated FileMaker databases into a single system tracking donors, accessions, processing details, and item locations

### **2006-11: Web Developer, Designer, and Studio Photographer**

*Pica Design, LLC – Belfast, ME*

Designed, developed, and managed 30+ websites using Drupal, WordPress, and ZenCart

Developed and ran social media campaigns using Facebook, Twitter, blogging, and email marketing

Designed supporting print materials for marketing campaigns including posters, catalogs, and brochures

Participated in branding and design creative meetings, conceptualizing client needs, and analyzing market data

Produced studio photographs of products for branding and marketing purposes