

Eric Kaltman

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Education

University of Michigan, Ann Arbor, Michigan
Bachelor of Arts (Chinese Studies, History) 2005

University of California, Berkeley
Master of Arts (Asian Studies / Educational Game Design) 2008

University of California, Santa Cruz
Doctorate (Computer Science), expected March 2017

Work Experience

GRADUATE RESEARCHER, University of California, Santa Cruz

Santa Cruz, California.....September 2013 to Present

- Principal researcher for NEH Digital Start Up Grant HD-51719-13, *A Unified Approach to Preserving Cultural Software and their Development Histories*.
- Researcher and project manager for IMLS National Leadership Grant LG-06-13-0205-13, *Game Metadata and Citation Project (GAMECIP)*

TEACHING ASSISTANT, University of California, Santa Cruz

Santa Cruz, California.....March 2012 to March 2013

- Teaching experience managing students for undergraduate game design courses
- Responsible for grading, attendance, running class sections (including giving lectures)
- Managing courses with over 200 students, including running weekly meetings and overseeing undergraduate readers and supporting graduate student instructors

GRADUATE RESEARCHER, University of California, Santa Cruz

Santa Cruz, California.....September 2011 to March 2012

- Helped in the development of UCSC version of Microsoft's educational design tool *Kodu* in conjunction with Microsoft developers
- Implemented custom logging data, and helped manage studies using *Kodu* to teach game design to middle school girls

SOFTWARE DEVELOPER, Aclima Inc.

San Francisco, California.....November 2010 to August 2011

- Led software development work, including UI design and full stack implementation, for a cloud-based web application connected to a multimodal air quality sensor network
- Conducted interviews and code tests for software development hiring
- Developed Ruby on Rails, JavaScript and HTML5 application for client side interaction
- Managed and worked with outsourced software developers

PROGRAMMER / GAME DESIGNER, University of California, Berkeley

Berkeley, California.....November 2008 to August 2012

- Part time position as a code editor and designer for online representation of the BlackCloud international air quality monitoring network
- Provided design assistance to the UC Berkeley Campus Dashboard Project for the construction of a local energy usage installation
- Implementation of backend MySQL recording and game play improvements for game-based study of Multiple Object Tracking among children with Fragile X Syndrome

CATALOGUER / PROJECT ARCHIVIST, Stanford University Library

Stanford, California.....April 2008 to August 2011

- Part time position as a cataloguer for the Cabrinety Software Collection and new software collections (including Steve Meretzky's Papers and the Infocom collection)
- Responsible for integrating collections into library database, and developing schema for referencing software artifacts in accordance with archival best practices
- Started Stephen Cabrinety Collection Blog and companion Twitter feed.

Written Works and Publications

Kaltman, Eric, et al. "Implementing Controlled Vocabularies for Computer Game Platforms and Media Formats in SKOS." *Journal of Library Metadata*, 16.1 (2016): 1-22.

Kaltman, Eric. "Procedurality," in *Debugging Game History: A Critical Lexicon*, ed. Henry Lowood and Raiford Guins. MIT Press, June 2016.

Kaltman, Eric. "Exploring the Technical History of Games Through Software and Visualization." *Proceedings of the 10th International Conference on the Foundations of Digital Games*, 2015.

Kaltman, Eric, Noah Wardrip-Fruin, Henry Lowood, and Christy Caldwell. "Methods and Recommendations for Archival Records of Game Development: The Case of Academic Games." *Proceedings of the 10th International Conference on the Foundations of Digital Games*, 2015. (Best Paper Nominee.)

Kaltman, Eric, Noah Wardrip-Fruin, Henry Lowood and Christy Caldwell. "A Unified Approach to Preserving Cultural Software Objects and their Development Histories: A Case Study in Academic Computer Games." UC Santa Cruz and Stanford University Library, 2015.
<http://www.escholarship.org/uc/item/owg4w6b9>

Kaltman, Eric Noah Wardrip-Fruin, Henry Lowood, and Christy Caldwell. "A Unified Approach to Preserving Cultural Software Objects and their Development Histories, Draft Recommendations." Presented at *Society of Cinema and Media Studies 2014*, Seattle, WA.

Kaltman, Eric. "The Construction of Civilization," *History of Games International Conference Proceedings in Kinephanos*, 2014.
<http://www.kinephanos.ca/2014/civilization>

Kaltman, Eric. "Kinesthetic Game Design Solutions for Chinese Stroke Order Learning Difficulties." Masters Thesis. UC Berkeley, 2008.

Ryan, James Owen, Eric Kaltman, Andrew Max Fisher, Timothy Hong, Taylor Owen-Milner, Michael Mateas, and Noah Wardrip-Fruin. "Large-Scale Interactive Visualizations of Nearly 12,000 Digital Games." *Proceedings of the 10th International Conference on the Foundations of Digital Games*, 2015.

Ryan, James Owen, Eric Kaltman, Michael Mateas, and Noah Wardrip-Fruin. "Tools for Videogame Discovery Built Using Latent Semantic Analysis." *Proceedings of the 10th International Conference on the Foundations of Digital Games*, 2015.

———. "What We Talk About When We Talk About Games: Bottom-Up Game Studies Using Natural Language Processing." *Proceedings of the 10th International Conference on the Foundations of Digital Games*, 2015. (Best Paper Nominee.)

- Ryan, James, Eric Kaltman, Timothy Hong, Katherine Isbister, Michael Mateas, and Noah Wardrip-Fruin. "GameNet and GameSage: Videogame Discovery as Design Insight." *Proceedings of the 1st International DiGRA / FDG Joint Conference*. 2016.
- Ryan, James Owen, Eric Kaltman, Timothy Hong, Michael Mateas, and Noah Wardrip-Fruin. "People Tend to Like Related Games." *Proceedings of the 10th International Conference on the Foundations of Digital Games*, 2015.
- Ryokai, Kimiko, Faraz Farzin, Eric Kaltman, and Greg Niemeyer. "Assessing multiple object tracking in young children using a game." *Educational Technology Research and Development* 61, no. 2 (2013): 153-170.

Software and Electronic Works

- CiteTool*. University of California, Santa Cruz. 2016. (with Joe Osborn)
Web application and CLI tools for local emulation of NES, SNES, MS-DOS, and N64 ROMs, including embeddable citation links to run-time states. Python, JavaScript and C / C++.
Code: <http://github.com/gamecip/{cite-tool-editor, cite-game}>
- GameSpace*. University of California, Santa Cruz. 2016. (with James Ryan)
Three-dimensional, navigable visualization of a latent semantic analysis (LSA) model of game descriptive text derived from Wikipedia. JavaScript and Python.
Site: <http://gamecip-projects.soe.ucsc.edu/gamespace>
Code: <https://github.com/james-owen-ryan/gamespace>
- GameNet*. University of California, Santa Cruz. 2014-2016. (with James Ryan)
Front-end search engine for a LSA model of game descriptive text derived from Wikipedia and GameFAQs. Python and JavaScript.
Site: <http://gamecip-projects.soe.ucsc.edu/gamenet>
Code: <https://github.com/james-owen-ryan/gamenet>
- GameSage*. University of California, Santa Cruz. 2014-2016. (with James Ryan)
Tool for searching GameNet LSA model by folding-in user provided text to create a new entry related to their description. Python and JavaScript.
Site: <http://gamecip-projects.soe.ucsc.edu/gamesage>
Code: <https://github.com/james-owen-ryan/gamesage>
- Decomp Me*. ZERO1 Biennial. San Jose, CA. 2012. (with Jae Rhim Lee)
Interactive iPad app visualizing the slow decomposition of a photo of the user's face to promote acceptance of mortality. Objective-C.
- Power to the Penguin!* University of California, Berkeley. 2010-2011. (with Omar Khan, Sam Borgeson, and Laura Kaltman)
Computer game promoting energy use awareness with custom interface based on a power generating hand crank. ActionScript 3.0, Flash, Python, Processing on Arduino.
Video: <https://www.youtube.com/watch?v=YoUGuGkXHMI>
- Café Energy Use Visualization*. University of California, Berkeley. 2009-2011 (with Omar Khan, Sam Borgeson, and Laura Kaltman)
Physical installation of a custom, shift-registered 8-foot RGB LED bar visualizing energy use in the Free Speech Café in Berkeley. Python and Processing on Arduino.
Video: <https://flic.kr/p/7Bbam9>
- Neuropolis*. University of California, Berkeley. 2010. (with Greg Niemeyer)
Demonstration game for education about neuroplasticity and the malleability of the mind for neurologists at McGill University. Objective-C and ActionScript 3.0.

Rulemaker. University of California, Berkeley. 2010. (with Greg Niemeyer and Ozge Samanci)
Game designed with researchers at UC Davis MIND Institute to study proportional reasoning in middle schoolers. ActionScript 3.0.

Building Energy Use Dashboard. University of California, Berkeley. 2009. (with Omar Khan and Sam Borgeson)
Custom physical dashboard displaying building energy use on UC Berkeley campus. Touchscreen application. ActionScript 3.0.

TrackFX. University of California, Berkeley. 2009. (with Greg Niemeyer, Faraz Farzin and Kimiko Ryokai)
Multiple objects tracking game designed to aid in diagnosis of Fragile X Syndrome. Touch tablet based for in classroom use by children under 5. ActionScript 3.0.

BlackCloud. University of California, Berkeley. 2009. (with Greg Niemeyer and Reza Naima)
Visualization of international indoor air-quality monitoring network sensor readings. Later spun off into Aclima Inc. (www.aclima.io).

Conference Presentations

Edwards, Glynn, Eric Kaltman, James Owen Ryan, Timothy Hong, and Noah Wardrip-Fruin.
“Augmented Exploration of Library Videogame Holdings by Techniques from Computational Linguistics.” presented at the Society of American Archivists Science, Technology, and Healthcare Roundtable, Cleveland, OH, August 2015.

Kaltman, Eric. “Current Projects: GAMECIP and Game Documentation.” Lightning Talk. Capture Lab. Stanford Lathrop Library, Stanford, CA, July 2015.

Kaltman, Eric. “Controlled Vocabularies for Computer Game Platforms and Media Formats.” Online Audiovisual Catalogers Annual Meeting, American Library Association Conference, San Francisco, CA, July 2015.

Kaltman, Eric. “The Construction of Civilization,” at *The History of Games International Conference*. Montreal. June 22, 2013.

Kaltman, Eric. “Civilization is Hard: Playing with Civ” at *Preserving Virtual Worlds 2 Final Project Meeting*. Washington, DC. December 13, 2012.

Rivera, Susan, Ann Wakeley, Jonas Langer, Greg Niemeyer, Eric Kaltman, and Pamela Gallego.
“Playing Video Games that Target Understanding of Inverse Spatial Relations Facilitates Reasoning About Causal Proportions in Children”. *41st Annual Meeting of Jean Piaget Society*. Berkeley, CA. June 2, 2011

Kaltman, Eric. “TrackFX: a game for Fragile X Research” poster and demo at *5th International Conference on the Foundations of Digital Games*. Pacific Grove, CA, June 19-21, 2010.

Kaltman, Eric. “Game Preservation and Neutrality? Difficulties,” at *090909 Neutral!=Bland: A Conference on Neutrality, Transparency, and Mediated Experiences*. Berkeley, CA, September 9, 2009.

{Committee, Conference, Project} Panels

Panelist. “Want to Preserve Digitally? Play a Game!” Expert Panel at *Society for Motion Picture and Television Engineers Annual Conference*. October 23, 2016.

Conference Organizer. *GAMECIP Advisory Meeting*. UCSC. September 9, 2016.

Project Manager. *Game Metadata and Preservation Project (GAMECIP)*. IMLS grant 2013-2016

Conference Organizer. *GAMECIP Advisory Meeting*. Stanford University Library. July 2-3, 2014.

Panelist. "Cultural Software, Media Systems, and Preservation," in *Digital Humanities and Media Studies Workshop at Society for Cinema and Media Studies*. Seattle, WA. March 23, 2014.

Panelist. "Motion, Meaning, and Math". *Digital Media and Learning Conference*. March 3, 2012

Conference Organizer. *Media Systems*. NSF / NEA / NEH Joint Conference, UCSC August 2012

Project Member, *Preserving Virtual Worlds 2*. IMLS grant 2010-2012

Invited Talks

"Challenges in Game Preservation: Experiences with Archiving Digital Games and Their Assets," at *Digital Asset Symposium (DAS)*. Portland, OR, November 19, 2015.

"Game Preservation at Institutions," at *Game Preservation Expert Meeting*. Netherlands Institute for Sound and Vision. Hilversum Media Park, Netherlands. February 16, 2016.

"Challenges in Game Preservation: Experiences with Archiving Digital Games and Their Assets," at Netherlands Institute for Sound and Vision. Hilversum Media Park, Netherlands. February 17, 2016.

"The Troubles with Game History: Objects and Game Play," in Media X Speaker Series at Stanford University. May 17, 2016.

"GAMECIP Overview," at Born Digital Exchange at Stanford University Library. July 19, 2016.

Relevant Blog Posts

"Current Game Preservation is Not Enough," June 6, 2016. *How They Got Game Blog*.
<http://web.stanford.edu/group/htgg/cgi-bin/drupal/?q=node/1211>

"Box Art Aesthetics: Board Games," May 7, 2009. *How They Got Game Blog*.
<http://web.stanford.edu/group/htgg/cgi-bin/drupal/?q=node/969>

"Old Paradigms and a Podcast," November 28, 2008. *How They Got Game Blog*.
<http://web.stanford.edu/group/htgg/cgi-bin/drupal/?q=blog/21>

"All Style: Early Psygnosis Games and Box Art," October 27, 2008. *How They Got Game Blog*.
<http://web.stanford.edu/group/htgg/cgi-bin/drupal/?q=node/435>

"Financial Woes," September 27, 2008. *How They Got Game Blog*.
<http://web.stanford.edu/group/htgg/cgi-bin/drupal/?q=node/377>

Grants and Awards

National Endowment for the Humanities, Digital Start Up Grant, HD-51719-13, \$30,000, with Noah Wardrip-Fruin, Henry Lowood, and Christy Caldwell.

Institute for Museum and Library Services National Leadership Grant for Libraries, LG-06-13-0205-13, \$500,000, with Game Metadata and Citation Project (GAMECIP) Team.

Patents

Multimodal Climate Sensor Network. US Patent 9,332,322, 2016/5/3

Multimodal Climate Sensor Network. EPO Patent EP2519936 A2 (EU) (Pending)

References

Available Upon Request.