

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) 2017

Work Experience

ASSISTANT PROFESSOR, Computer Science, California State University, Channel Islands

Camarillo, California.....August 2019 to Present

- Inherited upper-division courses on Database Theory and Design, Surveys of Computing Gaming, Computer Game Development and Human Computer Interaction
- Redesigned most courses and reorganized Minor in Computer Game Development
- Received consistent internal research funding to develop the field of software preservation
- Founded Software History Futures and Technologies (SHFT) research group

CLIR FELLOW FOR DATA CURATION IN THE SCIENCES, Carnegie Mellon University

Pittsburgh, Pennsylvania.....September 2017 to August 2019

- Council on Library and Information Resources (CLIR) post-doctoral fellowship at Carnegie Mellon University Library focused on CS research data curation and management.
- Responsible for research and software data management policies for CMU's research data services including liaising with CMU CS faculty and facilitating CS-library collaborations
- Node lead for CMU's participation in Sloan and Mellon's Emulation as a Service Infrastructure (EaaS) project
- Collaborating with the Software Preservation Network on metadata standards, research and technical infrastructure for emulation management

GRADUATE RESEARCHER, University of California, Santa Cruz

Santa Cruz, California.....September 2013 to August 2017

- 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 June 2013

- Teaching experience managing students for undergraduate game design courses
- Responsible for grading, attendance, running class sections (including giving lectures)
- Managed courses with over 200 students, which included 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 develop UCSC's version of Microsoft's educational design tool *Kodu* in conjunction with Microsoft developers
- Implemented custom logging data, and managed studies using *Kodu* to teach game design to middle schoolers

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.

GRADUATE READER, University of California, Berkeley

Berkeley, California.....September 2007 to December 2007

- Part time position as a reader for Professor Lanchih Po, East Asian Languages and Cultures
- Responsible for grading the performance of approximately 70 students, including assignments, daily attendance.

TEACHING ASSISTANT/READER, University of California, Berkeley

Berkeley, California.....January 2007 to May 2007

- Part time position as an assistant and reader for Professor Benjamin Bogin, Buddhist Studies
- Responsible for grading the performance of approximately 50 students, including assignments, daily attendance.
- Maintained weekly office hours to help students improve their writing and discuss class readings

Written Works and Publications

Peer-Reviewed Conference Papers

Kaltman, Eric, Roger Lorelli, Ethan Wolfe and Adam Larson. "Organizing a Content Profile for a Large, Heterogenous Collection of Interactive Projects," *Proceedings of the 2021 IEEE Conference on Big Data*. Computational Archival Science Workshop. 2021. (Accepted.)

Cardoso-Llach, Daniel, Eric Kaltman, Emek Eerdolu and Zachary Furste. "An Archive of Interfaces: Exploring the Potential of Emulation for Software Research, Pedagogy, and Design," *Proceedings of the ACM on Human-Computer Interaction*. Vol. 5, Iss. CSCW2, 2021. (Methods Recognition Award at ACM Computer Supported Cooperative Work 2021.)
<https://dl.acm.org/doi/10.1145/3476035>

Kaltman, Eric and Cardoso-Llach, Daniel. "Emulation of Historical Software as a Tool for Research and Pedagogy: A Case Study in the History of CAD," *Proceedings of the Society for Imaging Science and Technology's Archiving 2021 Conference*. 2021.

Kaltman, Eric. "Preliminary Analysis of a Large-Scale Digital Entertainment Development Archive: A Case Study of the Entertainment Technology Center's Projects." *Proceedings of the 2019 IEEE Conference on Big Data*. Computational Archival Science Workshop. 2019.

Kaltman, Eric, Joseph Osborn, Noah Wardrip-Fruin and Michael Mateas. "Getting the GISST: A Toolkit for the Creation, Analysis and Reference of Game Studies Resources." *Proceedings of the 12th International Conference on the Foundations of Digital Games*, 2017.

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

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, Eric Kaltman, Noah Wardrip-Fruin, and Michael Mateas. "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 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.

Peer-Reviewed Journal Articles

Kaltman, Eric, Stacey Mason and Noah Wardrip-Fruin. "The Game I Mean: Game Reference, Citation and Authoritative Access," *Game Studies*. 2021.
http://gamestudies.org/2103/articles/kaltman_mason_wardripfruin

Kaltman, Eric, Joseph Osborn, and Noah Wardrip-Fruin. "From the Presupposition of DOOM to the Manifestation of Code: Using Emulated Citation in the Study of Games and Cultural Software," *Digital Humanities Quarterly*. Volume 15, Issue 1. 2021.
<http://digitalhumanities.org/dhq/vol/15/1/000501/000501.html>

Kaltman, Eric, "Attending to Process and Data: A Research Alignment for Historical Game Production Archives," *ROMChip: A Journal of Game Histories*. 2.2 2020.
<https://romchip.org/index.php/romchip-journal/article/view/117>

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.

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.

Peer-Reviewed Demonstration Papers

Kaltman, Eric, Joseph Osborn, and John Aycok. "S4LVE: Shareable Videogame Analysis and Visualization," *Proceedings of the 14th International Conference on the Foundations of Digital Games*, 2019.

Kaltman, Eric, Joseph Osborn, Noah Wardrip-Fruin and Michael Mateas. "The Game and Interactive Software Scholarship Toolkit," *Proceedings of the 12th International Conference on the Foundations of Digital Games*, 2017.

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.

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.

Peer-Reviewed Posters

Kaltman, Eric and Daniel Cardoso-Llach. "Emulation of Historical Software as a Tool for Research and Pedagogy: A Case Study in the History of CAD," *Archiving 2021*.

Book Chapters

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

Lowood, Henry, Eric Kaltman, and Joseph Osborn. "Screen Capture," in *Histories of Performance Documentation: Museum, Artistic, and Scholarly Practices*, eds. Gabriella Giannachi and Jonah Westerman. Routledge. 2017.

Theses

Kaltman, Eric. "The Stabilization, Exploration and Expression of Computer Game History," PhD Dissertation. UC Santa Cruz, September 2017.
<https://escholarship.org/uc/item/4rn402db>

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

White Papers and Technical Reports

Gauthereau, Lorena, Eric Kaltman, Jessica Linker, Emma Slayton, Neil Weijer, Alex Wermer-Colan, and Chris Young. "CLIR Microgrant Final Report on Immersive Pedagogy Symposium." 2019.

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.

Ryan, James Owen, Eric Kaltman, Andrew Max Fisher, Timothy Hong, Taylor Owen-Milner, Michael Mateas, and Noah Wardrip-Fruin. "GameSpace: An Explorable Visualization of the Videogame Medium." UC Santa Cruz Technical Report, UCSC-SOE-17-14. 2017.

Significant 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>

Software and Electronic Works

S4LVE: System State Search Language and Visualization Environment.

Carnegie Mellon University. 2018-. (with Joe Osborn and John Aycock)

Domain specific programming language and visualization tool for interpreting memory states of game emulators (Atari 2600). JavaScript.

Code: <https://github.com/ekaltman/javatari.js>

Game and Interactive Software Scholarship Toolkit (GISST).

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/{gisst, 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/gamecip/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. JavaScript and Python.

Site: <http://gamecip-projects.soe.ucsc.edu/gamenet>

Code: <https://github.com/gamecip/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. JavaScript and Python.

Site: <http://gamecip-projects.soe.ucsc.edu/gamesage>

Code: <https://github.com/gamecip/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.

Site: <http://2012.zero1biennial.org/jae-rhim-lee>

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

Kaltman, Eric. “Emulation of Historical Software as a Tool for Research and Pedagogy: A Case Study in the History of CAD,” *Archiving Conference*. Online. June 22, 2021.

Schwaid-Lindner, Winnie, Andrew Berger, Ashley Blewer, Eric Kaltman, Nick Krabbenhoef, and Vicky Steeves. “Software Preservation Lab Challenges.” *NDSA Digital Preservation 2020*. Lightning talk. Online. November 12, 2020.

Kaltman, Eric. “Preliminary Analysis of a Large-Scale Digital Entertainment Development Archive: A Case Study of the Entertainment Technology Center's Projects.” *2019 IEEE International Conference on Big Data*. Presented at the Computational Archival Science Workshop, Los Angeles, CA. December 11, 2019.

Kaltman, Eric and Joseph Osborn. “S4LVE: Shareable Videogame Analysis and Visualization.” Demo presentation at the 14th International Conference on the Foundations of Digital Games. San Luis Obispo, CA. August 29, 2019.

Kaltman, Eric. “Workflows with the Game and Interactive Software Scholarship Toolkit (GISST),” *Digital Preservation 2018*. Las Vegas, NV. October 18, 2018.

Kaltman, Eric, Rikk Mulligan and Emma Slayton. “dSHARP in a Siloed world: Overcoming Challenges in Library Outreach at CMU,” *Digital Library Federation Forum 2018*. Las Vegas, NV. October 14, 2018.

Kaltman, Eric, Lisa Zilinski and Emma Slayton. "Integrating Liaison Librarians into the Data Curation Pipeline." *Open Repositories 2018*. Bozeman, MT. June 6, 2018.

Kaltman, Eric, Joseph Osborn, Noah Wardrip-Fruin, and Michael Mateas. "Game and Interactive Software Scholarship Toolkit." Demo presentation at the *12th International Conference on the Foundations of Digital Games*. August 2017.

Kaltman, Eric. "CiteTool: Leveraging Software Collections for Historical Research." *Personal Digital Archiving Conference*. Stanford, CA. March 29, 2017.

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.

Project and Professional Support

Board of Reviewers. *Game Studies*. 2021-Current.

Coordinating Committee Member. *Software Preservation Network*. 2021-Current.

Advisor. *Hub for AI Research in Archives (HAIRA)*. Council on Library and Information Resources. 2021-Current.

Project Manager (“Node Lead”). *Emulation as a Service Infrastructure (EaaS) Project*. California State University, Channel Islands. 2020-Current.
Working Group Coordinator. *Software Preservation Network Technical Infrastructure Working Group*. 2018-Current.

Project Manager (“Node lead”). *EaaS Project*. Carnegie Mellon University Libraries. 2018-2020.

Invited participant. *Videogame Preservation Workshop: Setting the Stage for Multi-Partner Projects*. Stanford University Library. February 22-23, 2018.

Member. *Software Preservation Network Research Working Group*. 2017-2019.

Member. *Software Preservation Network Metadata Working Group*. 2017-2018.

Project Manager. *Game Metadata and Preservation Project (GAMECIP)*. IMLS grant 2013-2017.

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

Event Support

Team Coach for CSUCI. *ACM International Collegiate Programming Competition (ICPC)*. Online. February 27, 2021.

Site Organizer, *Global Game Jam 2021*. California State University, Channel Islands. January 27-31, 2021.

Team Coach for CSUCI. *ACM ICPC*. Riverside Community College, Riverside, CA. November 9, 2019.

Conference Organizer. *Immersive Pedagogy: 3D Technology and Learning Symposium for Humanities Practitioners*. Carnegie Mellon University, June 27-28, 2019.

Workshop organizer and facilitator. “Engaging Liaison Librarians in the Data Deposit Workflow: Starting the Conversation.” *Open Repositories 2018*. Bozeman, MT. June 4, 2018.

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

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

Conference Organizer. *Media Systems*. NSF / NEA / NEH Joint Conference, UC Santa Cruz. August 2012

Panels

Panelist. “Born-Digital Design Records: Practicalities from Appraisal to Use,” *International Conference of Architectural Museums Annual Conference*. September 8th, 2021.

Panelist. “Summer Undergraduate Research Fellowship (SURF) Faculty Advice Panel,” California State University Channel Islands. June 16th, 2021.

Panelist. “What We Talk About When We Talk About Emulation,” *Emulation as a Service Infrastructure (EaaS) Roundtable series*. January 29, 2021.

<https://www.softwarepreservationnetwork.org/eaasi-roundtable-1/>

Panelist. "Seeing Clearly in Three Dimensions: Case Studies in 3D Technologies and Libraries," at the *Digital Library Federation Forum 2018*, October 15, 2018.

Advisor in CLIR Fellows' Webinar on Project Management, September 26, 2018.

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

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.

Peer Reviews

Article. *Journal of the Association of Information Science and Technology (JASIST)*. 2020.

Work-in-Progress. *ACM Conference on Human Factors in Computing (CHI)*. 2012.

Invited Talks

"Attending to Process and Data: Recovering Tacit Knowledge from Software Records," at the International Conference of Architecture Museums (ICAM), Rotterdam, Netherlands. September 8th, 2021.

"Finding a Future for Software Preservation," on the Software Preservation Network's Community Call. August 26th, 2021.

"Attending to Process and Data: Finding History in Computer Game and Cultural Software Archives," in CS Seminar Series, California State University, Channel Islands. November 17, 2020.

"Research Data Triage at Carnegie Mellon University Libraries," in Texas Digital Library Research Data Management Webinar Series. February 12, 2019.

"Collections as Data," in the DPC / SPN Software Preservation Webinar Series. May 9, 2018.

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

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

"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 *Digital Asset Symposium (DAS)*. Portland, OR, November 19, 2015.

Teaching

University of California, Berkeley. Graduate Student Instructor.

Buddhist Studies C114, "Tibetan Buddhism." Spring 2007.

International and Area Studies, Asian Studies 150, "Globalization in China." Fall 2007.

Computer Science, University of California, Santa Cruz. Graduate Student Instructor.

CMPS 148/248, "Interactive Storytelling." Undergraduate and graduate. Winter 2013.

CMPS 179, "Game Design Practicum: Microsoft Kinect." Fall 2012.

CMPS 80K, "Foundations of Interactive Game Design." 2 sections. Spring 2012.

CMPS 80K, "Foundations of Interactive Game Design." 2 sections. Spring 2013.

Computer Science, California State University, Channel Islands. Primary Instructor.

COMP 337, "Survey of Computer Games." Fall 2019.

COMP 337, "Survey of Computer Games." Spring 2020.

COMP 337, "Survey of Computer Games." Fall 2020.

COMP 337, "Survey of Computer Games." Spring 2021.

COMP 337, "Survey of Computer Games." Fall 2021.

COMP 437, "Computer Game Development." Fall 2020.

COMP 437, "Computer Game Development." Fall 2021.

COMP / IT 420, "Database Theory and Design." Fall 2019.

COMP / IT 420, "Database Theory and Design." Spring 2020.

COMP / IT 420, "Database Theory and Design." Spring 2021.

COMP / PSY 449, "Human Computer Interaction." Fall 2021.

COMP 491, "Senior Capstone Preparation." Fall 2019.

COMP 491, "Senior Capstone Preparation." Spring 2020.

COMP 491, "Senior Capstone Preparation." Fall 2020.

COMP 491, "Senior Capstone Preparation." Spring 2021.

COMP 491, "Senior Capstone Preparation." Fall 2021.

COMP 499, "Senior Capstone Project." Fall 2019.

COMP 499, "Senior Capstone Project." Spring 2020.

COMP 499, "Senior Capstone Project." Fall 2020.

COMP 499, "Senior Capstone Project." Spring 2021.

COMP 499, "Senior Capstone Project." Fall 2021.

IT 491, "Senior Capstone Preparation." Fall 2019.

IT 491, "Senior Capstone Preparation." Spring 2020.

IT 491, "Senior Capstone Preparation." Fall 2020.

IT 491, "Senior Capstone Preparation." Spring 2021.

IT 491, "Senior Capstone Preparation." Fall 2021.

IT 499, "Senior Capstone Project." Spring 2020.
IT 499, "Senior Capstone Project." Fall 2020.
IT 499, "Senior Capstone Project." Spring 2021.

COMP 596, "Masters Project." Fall 2021.

COMP 597, "Masters Advising." Fall 2020.
COMP 597, "Masters Advising." Spring 2021.
COMP 597, "Masters Advising." Summer Session 2021.
COMP 597, "Masters Advising." Fall 2021.

University Service

California State University, Channel Islands

Committees

Member. Academic Senate Budget Committee. 2019-2023.
Member. Academic Affairs Budget Advisory Committee. 2020-2022.
Member. Mechatronics-Computer Science Lab Technician Search Committee. 2021.

Organizer. Minor in Computer Game Development Redesign Committee. 2020-.
Organizer. Committee on Departmental Organization, Computer Science. 2020-.

Student Support

SURF Research Mentor. Summer 2021.
HSI-Smart Research Associate Advisor. 2021-2022.

Sponsorship

Faculty Sponsor. Chumash-Ventureño Dictionary Project. 2020.

Thesis Committees

Cabrera, Marco. "Using Machine Learning Methods to Study the Correlation of Traumatic Brain Injury (TBI) and Alzheimer's Disease," Masters. Fall 2020

Gutierrez, Christian. "Utilizing Lock-Step to Improve Networked Physics Collisions in Multiplayer Games," Masters. Fall 2021. (Main Advisor.)

Lingamdinne, Vasanthi. "GraphQL Implementation on REST APIS," Masters. Fall 2020.

Tandel, Monica. "Refactoring a Web Application Using Microservices," Masters. Spring 2021.

Received Grants and Awards

California State University Channel Islands, HEERF Research Restart Program. \$10,135. 2021.

California State University Chancellor's Office, Research, Scholarship and Creative Activities (RSCA) Award. "Founding the Software History Futures and Technologies (SHFT) Research

Group at CI,” \$6,481. 2021.

California State University Channel Islands, Instructionally Related Activities Award. “ACM International Collegiate Programming Contest 2021,” \$2,935. 2021.

California State University Channel Islands, Summer Undergraduate Research Fellowship Award. “Computational Archival Science and the Interactive Arts,” Summer 2021 cohort. \$5200 salary stipend. 2021.

California State University Channel Islands, Instructionally Related Activities Award. “ACM International Collegiate Programming Contest 2020,” \$2,878. 2020.

California State University Chancellor's Office, Research, Scholarship and Creative Activities (RSCA) Award. “Emulation as a Service at CSUCI: Providing Access to Legacy Computing Environments for Research Support and Classroom Pedagogy,” \$4,700. 2020.

California State University Channel Islands, Faculty Research and Development MiniGrant. “Computational Archival Science Analysis of a Large-Scale Virtual Reality Project Archive,” \$8,000. 2020.

Council on Libraries and Information Resources (CLIR) and Andrew W. Mellon Microgrant. “Immersive Pedagogy: A Symposium on Teaching and Learning with 3D, Augmented and Virtual Reality,” \$10,000, with CLIR 3D/VR Inquiry Group. 2018.

Carnegie Mellon University ProSEED / Crosswalk Grant. “Towards an Interactive Technologies Center (ITC) at the Carnegie Mellon University Libraries,” \$2,500, with Emma Slayton. 2018.

Council on Libraries and Information Resources (CLIR) Post-Doctoral Fellowship in Data Curation for the Sciences and Social Sciences. 2017-2019 cohort.

Librarians Association of the University of California Research and Professional Development Grant. “GAMECIP Controlled Vocabulary Project,” \$3,290, with Christy Caldwell (PI). 2017.

Jack Baskin & Peggy Downes Baskin Fellowship. University of California Santa Cruz. \$38,250. Awarded to fund PhD dissertation research. 2017.

Stanford University Libraries Payson Treat Fund. “Production of Computer / Console Platform Terminology Sheets for Software Cataloging,” \$8,640, with Henry Lowood (PI). 2015.

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. 2014.

National Endowment for the Humanities, Digital Start Up Grant, HD-51719-13, \$30,000, with Noah Wardrip-Fruin (PI), Henry Lowood, and Christy Caldwell. 2013.

Pending Grants and Awards

CSUCI Graduation Initiative 2025 Internal Permanent Funding Request. “Expanding Staffing Services to Increase Lab Access and Course Support for Computer Science, Information Technology and Mechatronics Students,” \$211,754, with Brian Thoms (CS chair). 2021.

NSF. "CRII: HCC: Toward a Framework for Emulation as an Exploratory Analytical Method for Historical Software Collections," \$175,000. 2021.

Patents

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

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

Press

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