

Catherine Griffiths

Assistant Professor, University of Michigan

Taubman College of Architecture and Urban Planning | Digital Studies Institute

Portfolio

www.isohale.com

Education

- 2015-2021 Doctor of Philosophy in Interdisciplinary Media Arts & Practice
 Annenberg Fellow
 University of Southern California, School of Cinematic Arts, Los Angeles, USA
- 2009-2011 Master of Architecture in Architectural Design
 The Bartlett School of Architecture, University College London, UK
- 2002 Erasmus Exchange Programme, Complutense University of Madrid, Spain
- 2001-2004 Bachelor of Arts in Fine Art
 Camberwell College, University of the Arts London, UK

Academic Experience

- 2023 Winter ARCH 515: Architectural Representation
 Taubman College, University of Michigan
- 2023 Winter DIGITAL 366: How Do Algorithms See?
 Digital Studies Institute, University of Michigan
- 2022 Fall ARCH 506: Counter algorithms and Visual Design
 Taubman College, University of Michigan
- 2022 Fall DIGITAL 355: Critical Data Visualization
 Digital Studies Institute, University of Michigan
- 2022 Winter ARCH 422: Situation Studio
 Taubman College, University of Michigan
- 2022 Winter DIGITAL 366: How Do Algorithms See?
 Digital Studies Institute, University of Michigan
- 2021 Fall DIGITAL 355: Critical Data Visualization
 Digital Studies Institute, University of Michigan
- 2021 Winter DIGITAL 358: How Do Algorithms See?
 Digital Studies Institute, University of Michigan
- 2021 Winter ARCH 422: Situation Studio
 Taubman College, University of Michigan
- 2021 Winter ARCH 600: Independent Study: Narrative Design with LIDAR
 Taubman College, University of Michigan
- 2020 Fall ARCH 516: Architectural Representation
 Taubman College, University of Michigan
- 2020 Fall ARCH 600: Independent Study: Narrative Design with LIDAR
 Taubman College, University of Michigan
- 2019 Spring IML 501: Digital Media Authorship and the Archive
 Co-instructor with Virginia Kuhn, University of Southern California
- 2016 - 2018 IML 288: Procedural Design and Critical Thinking
 Co-instructor with David Johnson, University of Southern California
- 2019 Spring IML 365: Future Cinema
 Teaching Assistant for Holly Willis, University of Southern California
- 2018 Fall CNTV 101: Reality Ends Here
 Teaching Assistant for Michael Bodie, University of Southern California

2018 Fall	IML 288: Procedural Design and Critical Thinking Teaching Assistant for John Carpenter, University of Southern California
2018 Spring	IML 203: Media Arts and Practice Studio II Teaching Assistant for Evan Hughes, University of Southern California
2017 Fall	CNTV 101: Reality Ends Here Teaching Assistant for Jeff Watson, University of Southern California
2017 Spring	IML 230: Media Design Teaching Assistant for Evan Hughes, University of Southern California
2016 Fall	IML 499: Hypercinema Teaching Assistant for Gabriel Peters Lazaro, University of Southern California

Group Exhibitions

2022	SLSA 2022, Society for Literature, Science, and the Arts, Purdue University, Indiana
2022	<i>Strange</i> , The Funktion, Fort Worth, Texas
2022	<i>Cinematic Arts Research</i> , University of Southern California, Los Angeles
2022	<i>On Air: Faculty Research Exhibition</i> , Taubman College, University of Michigan
2020	<i>Neurones: Simulated Intelligences</i> , Centre Pompidou, Paris, France
2020	<i>Geidai Games 01</i> , Tokyo Game Show 2020, Tokyo, Japan
2019	<i>22nd Generative Art Conference</i> , National Etruscan Museum, Rome, Italy
2019	<i>Discrete Familiars</i> , Fort Worth Arts Center, Texas
2019	<i>At The Margins</i> , Viewpoint Gallery, Society for Literature, Science, and the Arts, UC Irvine, California
2019	<i>iMapping</i> , USC School of Cinematic Arts, Los Angeles
2019	<i>Performative Computation</i> , Navel, Los Angeles
2018	<i>iMapping</i> , USC School of Cinematic Arts, Los Angeles
2017	<i>Preservation</i> (in collaboration with the art collective Ocean Earth Development Corporation), UNLV Marjorie Barrick Museum of Art, Las Vegas
2016	SLSA 2019, Society for Literature, Science, and the Arts, Atlanta
2016	<i>iMapping</i> , USC School of Cinematic Arts, Los Angeles
2015	<i>Against Method</i> , USC School of Cinematic Arts, Los Angeles
2014	<i>Blindspot Initiative</i> , Keystone Gallery, Los Angeles
2009	<i>Situation Room: Technology Change/Climate Stability</i> , Solo exhibition (in collaboration with the art collective Ocean Earth Development Corporation), Arnolfini Centre for Contemporary Art, Bristol, UK
2007	<i>The Moment You Realise You Are Lost</i> , Johann Koenig Gallery, Berlin, Germany
2007	<i>Home For Lost Ideas</i> , Solo exhibition with Dan Rees, General Public Gallery, Berlin, Germany
2007	<i>Muster Messe 2</i> , Art Fair presentation of Home For Lost Ideas project, Berlin, Germany
2006	<i>Sprout, Fidget, Freedom</i> , Wolverhampton Art Gallery, Wolverhampton, UK

Publications - Books

2009	<i>Home For Lost Ideas</i> Edited by Catherine Griffiths and Dan Rees, Published by Archive Books, Berlin Collection of artworks and texts by 80 artists and curators Nomination for the Gasag Art Prize, 2008
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Publications - Peer Reviewed - Book Chapters

2023	"Cinematic Data Visualization" in <i>Design and Science</i> , edited by Leslie Atzmon, Bloomsbury: London, UK.
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Publications - Peer Reviewed – Journal Articles

2019	"Computational Visualization for Critical Thinking" Journal of Science and Technology of the Arts, Volume 11, No. 2, Special Issue (2019): 9 -17.
2018	"Visual Tactics Toward an Ethical Debugging"

Journal of Digital Culture and Society. Rethinking AI: Neural Networks, Biometrics and the New Artificial Intelligence, Volume 4, Issue 1 (2018): 217-226.

Publications - Peer Reviewed - Conference Proceedings

- 2019 "Approaches to visualize and critique algorithms for ethical scrutiny"
Proceedings of the 7th Conference of Computation, Communication, Aesthetics & X, Milan, Italy (2019): 156 – 163.
- 2019 "Visualizing Algorithms: Mistakes, Bias, Interpretability"
Abstract in Art Machines: International Symposium of Computational Media Art Proceedings. Hong Kong: City University.

Academic Publications – Invited

- 2023 *Experimental Engagements in Interdisciplinary Art: An Anthology of Contemporary Practices*, edited by Jesse Jackson and Antoinette LaFarge, in *Experimental Practices: Encounters across Arts, Sciences and Humanities*, Volume 3, Brill: Leiden (Forthcoming 2023)
- 2022 "Situatedness: A Critical Data Visualization Practice" in *Prospectives Journal*, Issue 3, The Bartlett School of Architecture, University College London

Artistic Publications

- 2020 *Neurones: Les Intelligences Simulées*
Exhibition catalog, edited by Frédéric Migayrou and Camille Lenglois. Paris: Centre Pompidou / Éditions HYX (2020). My work 'Visualizing Algorithms Part II' is presented, 188 - 189.
- 2019 *Blindspot Initiative: Design Resistance and Alternative Modes of Practice*
Edited by Jose Sanchez. Los Angeles: Evolo Press (2019). My work 'Alluvium' is presented, 128 – 137.

Conference Presentations – Peer-reviewed

- 2022 Society for Social Studies of Science Conference. Universidad Ibero-Americana Puebla, Cholula, Mexico
Presentation: "Automating Labor Relations"
- 2022 The Alliance for the Arts in Research Universities (a2ru), University of Michigan, MI
Presentation: "Reflexive software development toward counteralgorithmic imaginaries"
- 2022 AI Anarchies, Akademie der Kunst. Berlin, Germany
- 2022 Society for Literature, Science, and the Arts 2022 Conference. Purdue University, IN
Presentation: "Critiquing Activity Recognition: The Future of Work"
- 2022 Levels of Life: Photography, Imaging and the Vertical Perspective, London College of Communication at University of the Arts London, The Photographers Gallery, and Centre for the Study of the Networked Image at London Southbank University
Presentation: "Critiquing Activity Recognition"
- 2019 22nd Generative Art Conference. Rome, Italy, December 2019
Presentation: "Automata I & II: Generative art as a language of the sociopolitical"
- 2019 Society for Literature, Science, and the Arts 2019 Conference. Irvine, CA, November 2019
Presentation: "Transforming perspectives on machine learning through critical art practices"
- 2019 xCoAx 2019: 7th Conference on Computation, Communication, Aesthetics & X. Milan, Italy, July 2019
Presentation: "Approaches to visualize and critique algorithms in ethically sensitive spaces"

- 2019 Art Machines: International Symposium on Computational Media Art, City University. Hong Kong, January 2019
Presentation: "Visualizing Algorithms: Mistakes, Bias, Interpretability"
- 2017 Codes and Modes Symposium: Reframing Reality, Virtuality, and Non-Fiction Media, Hunter College, CUNY. New York, NY
Presentation: "From Cellular Automata to Surveillance"
- 2016 Compositions Across/Between Edges, Surfaces, and Materialities Symposium, University of California, Los Angeles, CA
Presentation: "The Computational Fourth Wall"
- 2016 Society for Literature, Science, and the Arts 2016 Conference. Atlanta, GA
Presentation: "From Cellular Automata to Surveillance"
- 2016 Technarte 2016. Los Angeles, CA
Presentation: "The Computational Fourth Wall"

Conference Presentations & Talks – Invited

- 2023 (Forthcoming) Design and Science Book Launch, Swiss Center for Design and Health, Nidau
- 2023 Data Justice, AI and Design Colloquium, Michigan Institute for Data Science, University of Michigan
Presentation: "From Counter-data to Counter-algorithms"
- 2023 TV Lab Trade Show, Taubman College of Architecture and Urban Planning, University of Michigan
Talk with Diana Nucera: "Counter-AI Imaginaries"
- 2022 Neural Architecture Symposium, Taubman College of Architecture and Urban Planning, University of Michigan
Presentation: "Counter algorithms"
- 2022 Critical F(r)ictions Symposium, The Bartlett School of Architecture, University College London
Presentation: "Situatedness: A Critical Data Visualization Practice"
- 2019 University of Michigan, Stamps School of Art and Design. Ann Arbor, MI, September 2019
Presentation: "Algorithmic Aesthetics, Critical Code, and Machine Learning Ethics"
- 2019 Performative Computation Symposium: Interdisciplinary Programming Around AI x Improvisation, Navel LA. Los Angeles, CA, March 2019
Presentation: "Visualizing Algorithms: Mistakes, Obfuscation, and Latent Positions"
- 2019 Code Collective Working Group, University of Southern California. Los Angeles, CA, February 2019
Presentation: "Entry Points to Machine Learning for Artists"
- 2019 Electronic Literature Working Group, University of Southern California. Los Angeles, CA, February 2019
Presentation: "Entry Points to Machine Learning for Text and Image"
- 2018 Applied Computer Science Lecture Series, Woodbury University. Los Angeles, CA, September 2018
Presentation: "Visualizing Algorithms"
- 2017 Microsoft Research Design Expo: Intentional Design for Positive Cultural Impact in Mixed Reality Redmond, WA
Presentation: "Holographic Studio - Visualizing Ideas in Physical Space", in collaboration with Patrick Bender, Satrio Dewantono, and Keshav Prasad.
Awarded Best System Design
- 2009 Arnolfini Centre For Contemporary Art, Artist Talk with Peter Fend, Bristol, UK 2009

2009	Archive Books, Artists Talk with Dan Rees on Home For Lost Ideas, Florence, Italy 2009
2006	General Public, Artists Talk with Dan Rees on Home For Lost Ideas, Berlin, Germany 2006
2006	Sparwasser HQ, Artists Talk with Dan Rees on Home For Lost Ideas, Berlin, Germany 2006

Professional Development Activities

2021	Manuscript Workshop: How to turn your dissertation into a book. The Institute for Women and Gender (IRWG), University of Michigan, Fall 2021 - Winter 2022.
2021	Curating Scholarship: A Workshop on the Visual Presentation of Research, Institute for the Humanities, University of Michigan, 7 & 8 May 2021.

Academic Service

2023 Winter	Judge of Student Show 2023
2023 Winter	Architectural History & Theory Hiring Committee, Taubman College, University of Michigan
2023 Winter	Lectures and Exhibitions Committee, Taubman College, University of Michigan
2022 Fall	Jury for the UM Arts Engine and TV Lab's Artist Residency
2022 Fall	Architectural History & Theory Hiring Committee, Taubman College, University of Michigan
2022 Fall	Lectures and Exhibitions Committee, Taubman College, University of Michigan
2022 Winter	Summer Institute Committee, Digital Studies Institute, University of Michigan
2022 Winter	Lectures and Exhibitions Committee, Taubman College, University of Michigan
2021 Winter	Taubman College Admissions Committee, University of Michigan
2021 Fall	Summer Institute Committee, Digital Studies Institute, University of Michigan
2021 Fall	Lectures and Exhibitions Committee, Taubman College, University of Michigan
2021 Winter	Summer Institute Committee, Digital Studies Institute, University of Michigan
2021 Winter	Taubman College Admissions Committee, University of Michigan
2020 Fall	Summer Institute Committee, Digital Studies Institute, University of Michigan

Peer Review & Curatorial Service

2021-22	Digital Humanities Quarterly, Special Issue: Critical Code Studies Peer-reviewer
2020	Critical Code Studies Working Group, January 20 - February 09 Feminist AI Discussion Leader
2019	Spectator Journal 40.1 Peer-reviewer
2018	Critical Code Studies Working Group, January 15 - February 05 Co-organizer

PRAXIS, Exhibition & Artist Talks Monthly Series

USC School of Cinematic Arts, Los Angeles, California
Co-founder and co-curator

April 2017	PRAXIS VII: Landscapes of the Anthropocene
March 2017	PRAXIS VI: Exploring Social Systems and Feelings
February 2017	PRAXIS V: Open-Source Design for Community Building
November 2016	PRAXIS IV: Media, Activism, and Imagination
October 2016	PRAXIS III: Experimental Storytelling
September 2016	PRAXIS II: Data Visualization
April 2016	PRAXIS I: Design Methodologies
2006	Dialogues of Winter Discourses of Spring, February 28 – June 06 Co-curator of weekly series of art talks, Sparwasser HQ, Berlin, Germany

Workshops

2019	Intro to Artificial Intelligence: Dissecting Artisanal Datasets Workshop STACKED Expo at Glendale Tech Week, Los Angeles
2014	Spatial Data Visualization Workshop Arch 599, USC School of Architecture, Los Angeles
2014	Geo Data Viz Workshop Blindspot Initiative, Los Angeles

Professional Affiliations

ESC: Center for Ethics, Society, and Computing, University of Michigan, Faculty Affiliate, 2021 - present
MIDAS: Michigan Institute for Data Science, University of Michigan, Faculty Affiliate, 2021 - present
Architectural Computational Design + Construction (ACDCC) Group, University of Michigan, 2021 - 2022
The Humanities and Critical Code Studies Lab, University of Southern California, 2016 - 2020
HASTAC Scholar, 2016 - 2018

Awards & Funding

2021	PI, RCI Artistic Productions Grant, Project Title: Art Exhibition Design and Development for Critical Algorithm Research, University of Michigan, \$10,667
2021	PI, LSA Summer Research Support Grant, Project Title: Art Exhibition Design and Development for Critical Algorithm Research, University of Michigan, \$5,684
2021	Co-PI, Get it Together Grant, Project Title: Architectural Computational Design + Construction (ACDCC), University of Michigan, \$5,000
2020	USC PhD Achievement Award, \$5,000
2019	USC Graduate Grant for Research and Writing, \$5,000
2019	USC Graduate School Travel Grant, \$1,500
2018	Foundation for Contemporary Arts Grant, \$2,500
2017	Microsoft Research Design Expo, Best System Design Award
2015	Annenberg PhD Fellowship 2015-2020
2015	Rock Hudson Scholarship, \$5,000
2008	The Elephant Trust Grant, £2,000
2008	Nomination for Gasag Art Prize
2007	Arts Council England Grant, £5,000

Creative Research

2022-2023	<i>Optical Labor Flows</i>
2021-2022	<i>Convolutional Labor Domains</i> An algorithmic and cinematic visualization software that is programmed to explore a convolutional neural network, an advanced machine learning classifier that visualizes how images pass through a model and are interpreted algorithmically. As a critical software development project, it poses questions about the projected use of activity recognition algorithms in workplaces and their impact on future labor relations and the robotization of workers' bodies.
2020	<i>Irises</i> Video Installation commissioned by the Centre Pompidou, Paris. Animation of a simple machine learning classifier built from a custom software. The piece is visualized through an expressive painterly aesthetic to bring an audience closer to the algorithm's inner landscape and process of non-human cognition.
2019	<i>_Evolving</i> Simulation and Video Installation. Computational visualization of a genetic algorithm and the process of learning juxtaposed with cinematic scenes relating to notions of alternative intelligence building in the arts.

- 2018 *Visualizing Algorithms Part I: Decision Trees*
Interactive Application. Invites a user to navigate and analyze a simple machine learning classifier to overcome computational obfuscation and provide access to an algorithm, to think through questions around autonomous decision-making and transparency.
- 2017 *Automata I + II*
Simulation and Video Installation. Computational visualization of the underlying computational concepts used in computer vision systems. Tracing the logic of a cellular automata through to the gaze of a surveillance camera.
- 2016 *Cinema for Robots*
Video Installation and Interactive Application. Experiments with updating the concept of reflexivity in the arts for contemporary computational technologies, in this photogrammetry and drones.
- 2016 *Astray*
Interactive application. An experimental branching narrative and cinematic experience exploring the relationship between emerging affective computing technologies and human feelings of connection and disconnection.
- 2015 *LA River*
Animation. A procedural data visualization that juxtaposes biochemical data from the Los Angeles River, with sequences of aerial drone cinematography.
- 2014 *Alluvium*
Animation and Video Installation. A cinematic flow visualization of the imperceptible environmental changes to the landscape of Death Valley in California.
- 2013 *River Thames Multi-Register Survey: Cinematic, Biochemical, Lidar*
Animation and Video Installation. A multi-register exploration of a site in the River Thames Estuary near London, comparing how different modes of representation from the cinematic to the geomatic and biochemical, effect the notion of value of a place.
- 2013 *Nano-Scanning*
Animation. A data visualization proposal that recreates and speculates on biological representation and aesthetics.

Invited Critic

- 2021 B.Arch Introductory Design Studio, Southern California Institute of Architecture, Los Angeles
- 2019 M.Arch Technology Seminar in Artificial Hybrid-Cityscapes, University of California, Los Angeles, School of Architecture and Urban Design
- 2019 M.Arch Seminar in Experimental Representation, University of Southern California, School of Architecture, Los Angeles
- 2018 M.Arch Seminar in Experimental Representation, University of Southern California, School of Architecture, Los Angeles

Professional Experience

- 2014-2015 Design Consultant, Los Angeles, USA
Working with 5D Design Studio on speculative fiction scenario for Nike, and multiple projects for IMH.
- 2011-2013 IMH, London, UK
Consultant in engineering firm, producing engineering visualizations for marine and infrastructure applications.
- 2006-2009 Ocean Earth Development Corporation, Berlin, Germany & London, UK

Curriculum Vitae

Consultant in architecture firm. Principal Designer of pilot study in North Sea. Research at Institute of Oceanology, Qingdao, China.

2006-2008 Blackboard Films, Berlin, Germany & Los Angeles, USA
Production Assistant in independent film production company. Production Coordinator on the short film 'Pieces of Nature' shot in Frankfurt and Associate Producer on the feature film 'The LA River Project' shot in Los Angeles.

2006-2008 F-Stop, Berlin, Germany
Consultant in photography agency and archive.

2005-2006 Sparwasser HQ, Berlin
Curatorial Intern and organizer of lecture series