JEFF CARPENTER

Multimedia Specialist / Visualization Designer

NCSA Advanced Visualization Lab / eDream / CADENS

VIDEO

• Editing

- MOTION GRAPHICS
- FIELD & STUDIO PRODUCTION
- VIDEOGRAPHY & LIGHTING
- AUDIO POST PRODUCTION & CLEANUP
- NARRATION & VOICE OVER
- ARCHIVING
- SCRIPT WRITING
- IN MY TENURE AT NCSA, I HAVE BEEN INVOLVED IN THE CREATION OF 50+ VIDEO TITLES AND COUNTLESS HOURS OF EVENT DOCUMENTATION AND RAW VIDEO CAPTURE



SOLUTIONS FOR NIH DATA COMMONS

NCSA

BLUE WATERS SUSTAINED PETASCALE COMPUTING







SCIENCE OLYMPIAD

UNIVERSITY OF ILLINOIS

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TOGETHER

we are transforming healthcare

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MAYO LINIC

Can you imagine? BIRTH OF PLANET EARTH visualization except Photosynthesis in a Chromatophore

DATA

a fulldome production of NCSA, UNIVERSITY OF ILLINOIS THOMAS LUCAS PRODUCTIONS SPITZ CREATIVE MEDIA

> narrated by RICHARD DORMER music by JOHN AVARESE

Can you





ATIONAL TOURNAMENT



FOGETHER

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we are transforming healthcare

MAYO SLINIC

Photosynthesis in a Chromatophore

NCSA, UNIVERSITY OF ILLINOIS SPITZ CREATIVE MEDIA

imagine? Illinois/Mayo Alliance kickoff opener narrated by RICHARD DORMER https://mediaspace.illinois.edu/media/t/1_a2mqciwy

NESA

SCIENCE OLYMPIAD

NATIONAL TOURNAMENT



Photosynthesis in a Chromatophore

NCSA, UNIVERSITY OF ILLINOIS

Can you imagine? The National Data Service https://mediaspace.illinois.edu/media/t/1_xgsunx0k

TOGETHER

SOLUTIONS FOR NIH DATA COMMONS

NCSA

TOGETHER

NESA

Can you imagine?

Photosynthesis in a Chromatophore

NCSA, UNIVERSITY OF ILLINOIS

Solutions for NIH Data Commons https://mediaspace.illinois.edu/media/t/1_801chk0v

SCIENCE OLYMPIAD

TOURNAMENT



narrated by RICHARD DORMER

NESA

SCIENCE OLYMPIAD

NATIONAL TOURNAMENT



TOGETHER

Can you imagine?

Can You Imagine? (SC booth video) https://youtu.be/uk1KAN0bE_M

Photosynthesis in a Chromatophore

NCSA, UNIVERSITY OF ILLINOIS SPITZ CREATIVE MEDIA

JOHN AVARESE

SOLUTIONS FOR NIH DATA COMMONS

NESA

BLUE WATERS SUSTAINED PETASCALE COMPUTING

TOGETHER

we are transforming healthcare

Can you imagine? Photosynthesis in a Chromatophore https://mediaspace.illinois.edu/media/t/1_12y7kuog



NATIONAL TOURNAMENT

UNIVERSITY OF ILLINOIS



BIRTH OF PLANET EARTH visualization excerpt Photosynthesis in a Chromatophore

> a fulldome production of NCSA, UNIVERSITY OF ILLINOIS THOMAS LUCAS PRODUCTIONS SPITZ CREATIVE MEDIA

> > narrated by RICHARD DORMER music by JOHN AVARESE

Can you

TOGETHER

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UNIVERSITY OF ILLINOIS

Photosynthesis in a Chromatophore

NDS

NCSA, UNIVERSITY OF ILLINOIS

Livin' Like A Rock Star (Science Olympiad National Tournament Opener) https://youtu.be/E7I2XZ-Fcx8 JOHN AVARESE





3D DATA VISUALIZATION FOR SCIENCE COMMUNICATION

www.coursera.org/learn/data-visualization-science-communication/

37 individual videos
Video Editing
Motion Graphics
Sound editing & "sweetening"
Photo Retouching
Logo Design



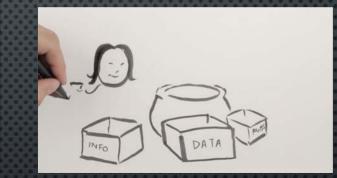
MOTION DESIGN

- MOTION DESIGN IS APPLYING GRAPHIC DESIGN PRINCIPLES TO FILM & VIDEO PRODUCTIONS THROUGH THE USE OF ANIMATION AND VISUAL EFFECTS
- Much of the work I do is manipulating 2d images as textures or as elements within larger video & multimedia projects

MOTION DESIGN EXAMPLES

CAN YOU IMAGINE?



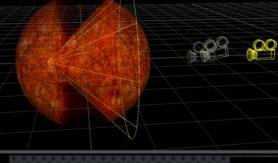


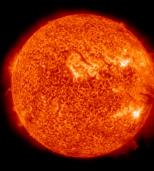
Morrill Act 1862

MAYO CLINIC & ILLINOIS ALLIANCE For Technology-Based Healthcare

SCIENTIFIC ILLUSTRATION & DATA VIS

Solar Superstorms Mapping 2D images from NASA Solar Dynamic Observatory to 3D





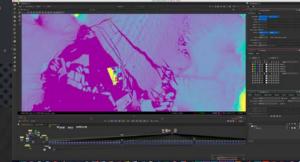
SCIENTIFIC ILLUSTRATION & DATA VIS



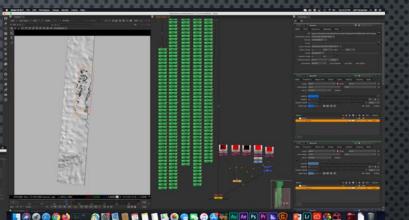
 SEEING THE BEGINNING OF TIME DES & LSST BUILDUP ANIMATION

ANIMATING & COMPOSITING

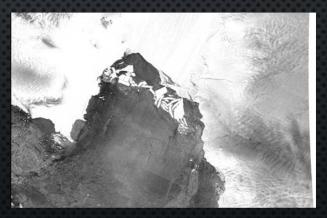
• ATLAS OF A CHANGING EARTH ANIMATING PINE ISLAND ICEBERG BREAKUP CLOUD MATTE & TEXTURE CLEANUP



Digital Elevation Map



Cloud noise removal



Sentinel Radar Imagery

Mapping "PIGlets" for animation

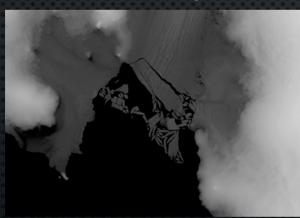
ANIMATING & COMPOSITING

pineisland_comp7-27_2233

 Atlas of a Changing Earth Animating Pine Island iceberg breakup Cloud Matte & Texture Cleanup



Sentinel Radar Imagery



Rotoscope Animated DEM

Dome Rendered Composite

WEB DESIGN & MAINTENANCE



EDREAM.ILLINOIS.EDU

VISUALIZATION ARCHIVE



Center for Multimedia Excellence at the University of Illinois

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					Center for Multimedia Excellent
			~	~	DVD, VHS, cassette tape, 16mm film,
			-		audio CDs, transparencies, slides, photographs. These and many and more types of makimodia lie
					scattered across the University of Illinois Urbana-
				-	Champaign campus. Shoobstes filled with Polaroids
۰.			-		are tacked under daks and file
					cabinets hold forgotten albums http://go.illinois.c
				~	in attics. But in many cases a
					department has taken steps to
			-		collect and store their media. Some individuals have
				-	employed systems of cataloging and continue to make their media accessible to other teasarchers
			-		Still the majority of campus video preductions.
					artistic renderings, visualizations, and cultural or
-	~		-	-	historic multimedia collections remain largely
۰.			-	-	unorganized and inaccessible.
			E 31		This is not a predicament limited to the Urbana-
			~	-	Champaign campas, Institutions nation wide have yet to survey and account for their multimedia.
			-	-	yet to survey and account for their multimeeta. Large-scale plans to counteract deterioration have
					vet to be implemented. Action has yet to be taken
			-	-	that will ensure media migration into the fature.
-	-	-	-	-	An urgancy is growing across all departments: we
					must take definite stops toward counting and
					preserving campus media, least entire decades of campus. Mr. seconds of missority cultures, and
					research be lost out of nealigence.

March 25, 2011 the Consus gamered 131 s from campus affiliates. These initial	
responses were gleaned through the efforts of CME volunteer networks and three	and the Univer
Library and Information graduate practicess students, who solicited s and promoted awareness through door-to- ce visits.	lify the great po ch and the benef socarchars can In this way, to or the progress of
Aarch 30, 2011 the Vice Chancellor arch published an email to campus in support Census, encouraging campus affiliates to Within 24 hours 246 more responses were	mefit campu
d. This clearly demonstrates that without from administration and campus officials, the still remain a slow and tedious process.	history. Unique tope and film,

and an expense of the service and an expense the service and the

In the constraint of the second secon

- Comprises some of the earliest examples of SciVis created by NCSA from 1985 – 2003 mer and the states
- Working with Josh Harris & Media Preservation at the library
- Over 1096 individual tapes have been catalogued
- Approximately 250 titles have been slated to be digitized in the initial phase.
- This list does include overlap but does not include original field
 recordings

https://www.ideals.illinois.edu/bitstream/handle/2142/58899/IL Campus Media Census FINAL Report.pdf





Center for Multimedia Excellence at the University of Illinois

	Center for Multimedia Excellen
	<text></text>
esente esterio e Porta de Universites	The Center for Multimedia Excellence (CME) wasks to identify individuals and comput- nits that held digital and analog modia collections in order to devide a competencive presentation strategy for modia used for research and non- research purposes."
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unided by Lany Snare II 1955, sounders field and approximation protonomality approaches coloridations. The simular protonom proposition coloridations in the distance of the simular test observation methods are either sounciliation for construct. Thereases difficult in the distance of the standard fields in training and "No your can sus, the whole colorization in part choiced in the simular kinetic of the standard fields in training and "No your can sus, the whole colorization in part choiced in the simular kinetic and all kinds of shaff new."

- Once archive quality captures have been done, the challenge is making them available to the public
- By creating a searchable repository, our legacy can continue to be used as a source for historic discovery and use in new works.
- Software Development and Application Support groups would be very helpful in making this happen
- This repository only includes the work stored on physical media, a subsequent challenge will be how to deal with the "born digital" assets we are creating daily

MUSEUM KIOSK DEVELOPMENT

From the Clutches of the Líon The Contest Scene





Enter Here

Miniature Masterpieces Spurlock interactive exhibit

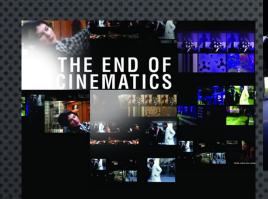
https://www.spurlock.illinois.edu/collections/notable-collections/profiles/cylinder-seals.html

GREEN Stairs

Tornado visualization for Museum of Science & Industry "Science Storms"

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SCI VIS IN PERFORMANCE

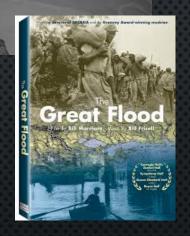


MIKEL ROUSE

GRA

From Spring 1926 to Spring 1927, heavy rainfall swelled the Mississippi River and its tributaries





PHOTOGRAPHY







