

Samir Ghosh

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Education	University of California, Santa Cruz	Santa Cruz, California
	PhD Candidate in Computational Media · 2022 – <i>Present</i> Advisor: Katherine Isbister <i>Expected graduation: December 2026</i>	
	University of Southern California	Los Angeles, California
	BS in Computational Linguistics · 2018 BA in Cognitive Science	

Selected Projects	Virtual Reality for Scientific Sensemaking	
	Multi-year research program in collaboration with civil engineers, marine scientists, and other technical domains to explore how collaborative XR tools can augment the scientific sensemaking process. Supported by the Sloan Foundation.	
	AI War Cloud 🏆	
	Ars Electronica 2025 piece by Sarah Ciston that illustrates complex relations of AI technology across industry and government. Developed XR views using a bespoke rendering technique. Winner of the S+T+ARTS Grand Prize of the European Commission.	
	Booksnake AR	
	NEH funded iOS AR app displaying assets from the Library of Congress and other archival information. Early design, software architecture, and project management contributions.	
	Bunker Hill VR	
	Historical recreation of 1930s downtown Los Angeles using civil engineering data. Project management, documentation, and technical contributions.	
	Bodyscape	
	Internationally exhibited (e.g. SIGGRAPH, Ars Electronica) wearable technology fashion piece by Behnaz Farahi. Contributions in gait responsive algorithms, circuit design, safety systems, and generative design.	

Honors & Scholarships	Dean's Travel Grant	2025
	Finalist, UC Santa Cruz Grad Slam	2023
	Regents Fellowship	2023
	CITRIS Tech For Good Award	2022
	Dean's Fellowship	2022

Publications

AI WAR CLOUD DATABASE

Samir Ghosh and Sarah Ciston
SIGGRAPH Spatial Storytelling '26

Designing Shared Virtual Reality Sensemaking Tools for Wildfire Mitigation 🏆

DOI pending

Samir Ghosh, Maryann Godje, Charles Lesser, Yanglan Wang, Paola Lorusso, Kenichi Soga, Joshua McVeigh-Schultz, and Katherine Isbister
Meaningful XR '26

Diving in a Coral Reef: Collaborative XR Exploration of Reef Restoration using Gaussian Splats

DOI pending

Samir Ghosh, Erik Chao, Christopher Lowrie, Will Gislason, Michael Beck, Joshua McVeigh-Schultz, and Katherine Isbister
Meaningful XR '26 Demo

“Let's Jump into More Creative Avatars and Take this Brainstorm to the Flying Platform:” Playful Prototypes of VR Meeting Support Tools

Anya Osborne, Joshua McVeigh-Schultz, Alexandra Leeds, George Butler, **Samir Ghosh**, and Katherine Isbister
DIS 2025

Introducing Booksnake: A Scholarly App for Transforming Existing Digitized Archival Materials into Life-Size Virtual Objects for Embodied Interaction in Physical Space, using IIIF and Augmented Reality

Sean Fraga, Christy Ye, Henry Huang, Zack Sai, Michael Hughes, April Yao, and **Samir Ghosh**
CHI EA '25

Purposeful XR: Affordances, Challenges, and Speculations for an Ethical Future

Elizabeth Childs, **Samir Ghosh**, Sebastian Cmentowski, Andrea Cuadra, Rabindra Ratan
CHI EA '25

Designing Shared VR Tools for Spatial Scientific Sensemaking About Wildfire Evacuation

Samir Ghosh, Yuhui Wang, William Zhou, Kelly Lin, Joshua McVeigh-Schultz, and Katherine Isbister.
CHI EA '24

Eye Ball: Gazing as a Dilemma in a Competitive Virtual Reality Game

Michael Lankes, **Samir Ghosh**, Charles Bishop Lesser, and Katherine Isbister.
CHI EA '24

The Cuteness Factor: An Interpretive Framework for Artists, Designers and Engineers

Angela Y.H. Fan, Chen Ji, Ella Dagan, **Samir Ghosh**, Yuhui Wang, Katherine Isbister.
DIS 2023

Workshop Papers

Brahma: an Open Source Library for Cross-platform Social XR and Scientific Visualization

Samir Ghosh, Joshua McVeigh-Schultz, and Katherine Isbister

Social Augmentation through XR Technologies Workshop, CHI '26

Designing Interaction Approaches for Shared Sensemaking in XR

Samir Ghosh, Joshua McVeigh-Schultz, and Katherine Isbister.

Sensemaking Workshop, CHI '24

Social Physiological Data Awareness in Collocated Mixed Reality Movement

Samir Ghosh, Charles Lesser, Kaia Rae Schweig, Sofia De La Vega Mireles, and Katherine Isbister.

PhysioCHI Workshop, CHI '24

Revealing Aspects of Hawai'i Tourism Using Situated Augmented Reality

Karen Abe, Jules Park, and **Samir Ghosh**

With or Without Permission Workshop, CHI '24

Designing a mixed-initiative multi-user VR interface for wildfire mitigation

Samir Ghosh, Yanglan Wang, Kecheng Cheng, Anthony Angeles, Andrew Moskovich, Kenichi Soga, and Katherine Isbister.

HCI for Climate Change Workshop, CHI 2023

Research Positions

Graduate Student Researcher, UC Santa Cruz

Jun 2025 – Present

Coastal Climate Resilience Center and UC Santa Cruz Visualization Lab

Graduate Student Researcher, UC Santa Cruz

Jun 2025 – Present

Catalyst Program, UC Open Source Program Office

Visiting Scholar, Blekinge Institute of Technology

May 2025 – Jun 2025

HINTS Project, Department of Computer Science

Graduate Student Researcher, UC Santa Cruz

Jun 2023 – Apr 2025

Virtual Reality for Scientific Sensemaking, Social Emotional Technology Lab

Supported by the [Sloan Foundation](#)

**Industry
Experience**

Ahmanson Lab

USC Harman Academy

Assistant Director · Jan 2019 – Aug 2022

Los Angeles, California

YUR Inc.

VR Developer · Jul 2021 – Dec 2021

Los Angeles, California

Intel Corporation

Intern · Summer 2016, Summer 2018, Fall 2018

Santa Clara, California

Enlighted Inc.

Intern · Summer 2014

Sunnyvale, California

Teaching

Teaching Assistant, UC Santa Cruz

CMPM 115: Lead By Design

Winter 2022

Seminars, Talks & Tutorials

Seals, Proteins, and Wildfires	May 2026	Sensors, Lights, and Motors	Sep 2021
<i>Lightning Talk, Questioning Reality '26 (QR'26)</i>		<i>Polymathic Making Workshops, Ahmanson Lab at USC</i>	
A Career in VR + Coding and Art Workshop	Jan 2026	3D Modeling Basics	Sep 2021
<i>Bullis Charter School, Los Altos, California</i>		<i>Polymathic Making Workshops, Ahmanson Lab at USC</i>	
Virtual Reality and Scientific Sensemaking	Jun 2025	Glitch + D3.js	Oct 2020
<i>Department of Industrial Design, TU Eindhoven, Netherlands</i>		<i>Generative art-a-thons, Ahmanson Lab at USC</i>	
Virtual Reality and Scientific Sensemaking	Jun 2025	VR with Mozilla Hubs	Oct 2020
<i>German Aerospace Agency (DLR), Braunschweig, Germany</i>		<i>Generative art-a-thons, Ahmanson Lab at USC</i>	
Virtual Reality and Scientific Sensemaking	May 2025	p5js	Sep 2020
<i>Department of Computer Science, Blekinge Institute of Technology, Sweden</i>		<i>Generative art-a-thons, Ahmanson Lab at USC</i>	
Revisiting the for Loop	Nov 2023	Applied Neural Networks	Apr 2020
<i>Slugworks, UC Santa Cruz</i>		<i>Polymathic Making Workshops, Ahmanson Lab at USC</i>	
A Career in HCI and VR	Oct 2023	Introduction to Creative Code	Apr 2020
<i>Cognitive Science Student Association, UC Santa Cruz</i>		<i>Polymathic Making Workshops, Ahmanson Lab at USC</i>	
Generative Art in Virtual Reality Using p5js	Jun 2023	STEM Speaker Series	Mar 2020
<i>Digital Arts and New Media, UC Santa Cruz</i>		<i>Katherine Johnson STEM Academy</i>	
Wildfires in Virtual Reality	Mar 2023	Deepfake Detection	Mar 2020
<i>UC Santa Cruz Grad Slam, Kuumbwa Jazz Center</i>		<i>Polymathic Making Workshops, Ahmanson Lab at USC</i>	
Multi-user VR Workshop	Feb 2023	Practical Arduino	Mar 2020
<i>Digital Arts and New Media, UC Santa Cruz</i>		<i>Polymathic Making Workshops, Ahmanson Lab at USC</i>	
Surveillance and the Attention Economy	Mar 2022	Data Surveillance and Digital Rights	Feb 2020
<i>Polymathic Making Workshops, Ahmanson Lab at USC</i>		<i>Polymathic Making Workshops, Ahmanson Lab at USC</i>	
Computational Art	Feb 2022	Introduction to 3D Printing and the Makerbot Replicator	Feb 2020
<i>Polymathic Making Workshops, Ahmanson Lab at USC</i>		<i>Polymathic Making Workshops, Ahmanson Lab at USC</i>	
WebRTC, WebGL, and other web protocols	Jan 2022	WebVR	Nov 2019
<i>Polymathic Making Workshops, Ahmanson Lab at USC</i>		<i>Polymathic Making Workshops, Ahmanson Lab at USC</i>	
Techniques with Graphics Code	Sep – Oct 2021	Wearable Technology	Oct 2019
<i>Emergent Technology Series, Ahmanson Lab at USC</i>		<i>Polymathic Making Workshops, Ahmanson Lab at USC</i>	
		Get Your Own Climate Data	Oct 2019
		<i>Polymathic Making Workshops, Ahmanson Lab at USC</i>	

VR Web Development	Sep – Oct 2021	Introduction to 3D Printing and the Makerbot Replicator	Sep 2019
<i>Emergent Technology Series, Ahmanson Lab at USC</i>		<i>Polymathic Making Workshops, Ahmanson Lab at USC</i>	
Object Recognition, Privacy Rights, and Data Collection	Sep 2021	Practical Arduino	Sep 2019
<i>Polymathic Making Workshops, Ahmanson Lab at USC</i>		<i>Polymathic Making Workshops, Ahmanson Lab at USC</i>	
		Promise and Peril of Algorithmic Living	Apr 2018
		<i>USC Visions and Voices</i>	

Service	Google Summer of Code		Summer 2025
	Mentor · <i>UC Open Source Program Office</i>		
	Creative Code Collective		2023 – Present
	Community Lead		
	Committee for Planning and Budget		2023 – Present
	Graduate Representative · <i>Academic Senate, UC Santa Cruz</i>		
	MIT Reality Hack		2025
	Mentor		
	ACM Halfway to the Future Symposium 2024		2023 – 2024
	Social Media Chair		
	Google Summer of Code		Summer 2022
	Mentee, Contributor · <i>Processing Foundation</i>		
	Corpus Callosum (Student Org.)		Fall 2015 – Spring 2018
	Technical Director · <i>Viterbi School of Engineering, USC</i>		

Personal Information	Citizenship	USA
	Languages	English (native), French (proficient), Korean (basic)
	Email	samir.ghosh@ucsc.edu
	Website / Portfolio	samir.tech
	Interests	Dance, yoga, creative code