

Creative Technologist Digital Media Artist

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Shi Weili (surname: Shi, given name: Weili) has been creating interactive and immersive experiences for museums and cultural institutes since 2016. As a Senior Creative Technologist at G&A, he works closely with a diverse team of designers, developers, writers, and producers to apply cutting-edge technologies to meaningful human-computer interaction and effective storytelling. From concept design and prototyping to budget estimation and production, Shi participates in all stages of the creative process.

As a digital media artist, Shi creates unconventional experiences to provoke contemplation. While most of his artworks involve substantial use of technology, he always tries to infuse them with a dose of Zen mindfulness.

# CREATIVE INDUSTRY EXPERIENCE

2023-present G&A, New York—Senior Creative Technologist

2019-2023 Bluecadet, New York—Senior Developer

2016-2019 Bluecadet, New York-Developer

# ACADEMIC EXPERIENCE

2023

Fudan University—Guest Lecturer Presentation: Designing Interactive Experiences in Museum Settings—Case Studies of the MIT Museum and the Henry Ford Museum of American Innovation

2021 University of Illinois Urbana-Champaign—Guest Lecturer Presentation: Applied Artificial Intelligence in Museum Experiential Design and Art Creation

2020 SIGGRAPH 2020—External Reviewer Reviewing submissions to the Art Papers track

2019 Columbia University—Guest Lecturer Presentation: Augmented Imagination—Creative Process

2017

Monmouth University, New Jersey—Guest Lecturer Presentation: A Quest for Mindfulness—Creative Process Workshop: A Crash Course in Creative Coding—Application of Randomness in Processing

2016-2017 **Parsons School of Design, New York—Adjunct Professor** Teaching graduate-level courses on creative technologies **Courses:** *Currents: Coding with Cinder, Creativity & Computation Lab*  2011 Microsoft Research Asia, Beijing-Research Intern

Researching human-computer interaction technologies

2011

Tsinghua University, Beijing – Teaching Assistant Course: C++ Program Design Practices

## EDUCATION BACKGROUND

2014-2016 Parsons School of Design, New York—Master of Fine Arts Major: Design and Technology

2010-2014

Tsinghua University, Beijing—Master of Engineering Major: Computer Science and Technology

2003-2007

Huazhong University of Science and Technology, Wuhan—Bachelor of Engineering Major: *Electronic and Information Engineering* 

# SELECTED CREATIVE TECHNOLOGY PROJECTS

2022

MIT Museum—AI: Mind the Gap

Role: Lead developer, Black Box and Collaborative Poetry

**Technologies:** Unity, HLSL, Tensorflow, GPT-3, GPT-2, TouchDesigner, Three.js, P5.js, React, Strapi **Award:** The Webby Awards, Metaverse, Immersive & Virtual, Best Experiential Design, Webby Winner, 2023; MUSE Design Awards, gold winner in Interior Design - Exhibits, Pavilions & Exhibitions; blooloop Innovation Awards, third place in Experiential Technology

MIT Museum invites visitors to take part in on-going research and demonstrate how science and innovation will shape the future of society. As two key experiences in the museum's AI gallery, Black Box invites visitors to draw a face, and uses holographic spatial projection to visualize how a custom-trained neural network processes the face drawing layer by layer to identify its expression; Collaborative Poetry invites visitors to collaborate with an AI in writing a poem to show AI as a tool to unlock human creative expression.

2022 Christie's – Visionary: The Paul G. Allen Collection Role: Lead developer Technology: Unity

Achieving over \$1.6 billion, the Visionary: The Paul G. Allen Collection auctioned at Christie's became the most valuable private collection in art history and the biggest sale in auction history. Bluecadet collaborated with Christie's to create a lobby exhibition at Rockefeller Center with an immersive LED wall and an interactive timeline to showcase the 150+ masterpieces spanning 500 years of artistic innovation.

2020

The Henry Ford Museum of American Innovation – AI Connections Table Role: Developer, AI curation system Technologies: Cinder, EntityX, Tensorflow, scikit-learn, SQLite Awards: Anthem Awards, silver winner in Education, Art, & Culture, silver winner in Responsible Technology

The Henry Ford of Museum American Innovation wanted to give guests a peek into the sometimes messy, always interesting mind of a museum curator. The AI Connections Table marries curator-created concepts with surprising AI-driven discoveries, illuminating connections between over 30,000 objects across the museum's digital collection.

2019

W. L. Gore & Associates – *Capabilities Center* Role: Lead developer, Immersive Corridor and Product Wall Technologies: TouchDesigner, ELM, Houdini Award: ABPM 2022 World Class Briefing Center

With motion-triggered lighting elements, the Immersive Corridor leads into the large central exhibition space of Gore and subtly introduces themes, materials, and visual effects that recur throughout the Capabilities Center. The Product Wall activates dynamic light trails to highlight products in a variety of industries as a powerful visualization of the scale and scope of Gore's work.

#### 2019 Independence Visitor Center – Concierge Wall Role: Developer Technologies: Cinder, GLSL, OpenPTrack, openFrameworks, scikit-learn

As the gateway to Philadelphia's attractions, the Independence Visitor Center is an essential resource for tourists exploring the city. The 42-foot multi-user touch wall dynamically responds to visitors' presence, surfacing the city's attractions in fun and beautiful ways.

### 2019

### The Henry Ford Museum of American Innovation – Interpretation Column Role: Lead developer Technologies: Cinder, GLSL, openFrameworks

The Agriculture and the Environment interpretation column transforms an infrastructural element into new interpretive surfaces. It offers two large-scale touch surfaces that explore the exhibit's key themes through the lives and work of Rachel Carson, George Washington Carver, and Luther Burbank.

#### 2018

MIT Museum—Lighter, Stronger, Faster: The Herreshoff Legacy Role: Lead developer, Collection Visualizer Technologies: Cinder, GLSL Award: MUSE Design Awards, silver winner in Architectural Design—Pop-Ups & Temporary

The MIT Museum's exhibition Lighter, Stronger, Faster charts the prolific work of marine technologist and innovator Nathanael Greene Herreshoff. Our Collection Visualizer allows visitors to quickly see key innovation moments and highlights from Herreschoff's 75-year career through exploring a fully scalable timeline of more than 10,000 blueprints and documents.

# SELECTED ART PROJECTS

### 2019

## Terra Mars Series

Artistic renderings of Mars and Earth with visual reference to each other made with custom AI models trained with topographical data and satellite imagery of the two planets.

## Exhibitions:

- Compass Navigating the Future. Beginning May 27, 2019. Ars Electronica Center, Linz.
- "Weather the Weather" a SciArt Initiative exhibition at the **New York Hall of Science**. September 10, 2019 January 10, 2020.
- The 5th Art and Science International Exhibition and Symposium. November 2-30, 2019. National Museum of China, Beijing.
- SUBMERGE. December 15, 2019-January 31, 2020. Science Gallery Bengaluru.
- Shenzhen Bay STArts Festival—the Final Prophet. December 26, 2020—January 26, 2021. MixC Shenzhen Bay.
- Art: Key to Conflict Resolution. June 27-July 27, 2022. Municipal Art Gallery, Thessaloniki.
- *FILE Electronic Language International Festival*. July 13–August 28, 2022. Galeria de Arte do Sesi, São Paulo.
- Annihilation. May 19-August 11, 2023. SNAP, Shanghai.

Also see related academic publications and media coverage.

### 2016

### Shan Shui in the World

Shanshui (landscape) paintings of selected places in the world generated by a computational process based on geo-data.

#### Exhibitions:

- *BETWEEN SPACES: Parsons MFA Design* + *Technology Class of 2016 Thesis Exhibition.* May 17–21, 2016. **Parsons School of Design**, New York.
- Overfitting. August 26-28, 2016. Ouchi Gallery, New York.
- NYC Media Lab 16. September 22, 2016. Columbia University, New York.
- *Metamorphoses: VISAP'16, the IEEE VIS Arts Program.* October 23-28, 2016. Baltimore Convention Center, Baltimore, MD.
- Digitalia. March 18-April 15, 2017. Barrett Art Center, Poughkeepsie, NY
- Art: Key to Conflict Resolution. July 17-31, 2019. Serafio, Athens.
- Art: Key to Conflict Resolution. June 27-July 27, 2022. Municipal Art Gallery, Thessaloniki.

Also see related academic publications and media coverage.

## ACADEMIC PUBLICATIONS

#### 2020

Elizabeth L Murnane, Xin Jiang, Anna Kong, Michelle Park, Weili Shi, Connor Soohoo, Luke Vink, Iris Xia, Xin Yu, John Yang-Sammataro, Grace Young, Jenny Zhi, Paula Moya, James A Landay. *Designing Ambient Narrative-Based Interfaces to Reflect and Motivate Physical Activity*. **CHI 2020**, **Honolulu.** Won **Best Paper Award** in CHI 2020.

### 2019

Weili Shi. *Terra Mars: When Earth Shines on Mars through AI's Imagination.* Leonardo, Vol. 52, Issue 4. Presented in SIGGRAPH 2019, Los Angeles.

2017

Weili Shi. A Generative Approach to Chinese Shanshui Painting. **IEEE Computer Graphics and Applications**, Issue No. 01—Jan.-Feb. (vol. 37).

#### 2016

Weili Shi. Shan Shui in the World: A Generative Approach to Traditional Chinese Landscape Painting. **IEEE VIS 2016 Arts Program**, Baltimore.

#### 2013

Weili Shi, Weidong Liu, Jiaxing Song. Stentorian MAC: Enhance Concurrency in Underwater Acoustic Sensor Networks. **19th Asia-Pacific Conference on Communications**, Bali.

#### 2011

Weili Shi, Yuanchun Shi, Weidong Liu. An Execution Oriented Way to Organize Personal Activity. Information. **7th Joint Conference on Harmonious Human Machine Environment**, Beijing. (In Chinese)

## SELECTED MEDIA COVERAGE

## 2021

• Relative boundaries. Interviewed by Shenzhen Bay STArts Festival.

## 2020

- When water speaks. Business Standard.
- IEEE VIS 2016 and 2017 Arts Program Gallery. Leonardo.

## 2019

- Behind 'Terra Mars' With Weili Shi. Interviewed by ACM SIGGRAPH Blog.
- Terra Mars ANN's topography of Mars in the visual style of Earth. Creative Applications Network.

## 2018

- Interviewed in book *Can Art Aid in Resolving Conflicts?: 100 Perspectives* by Noam Lemelshtrich Latar, Jerry Wind, and Ornat Lev-er. Frame Publishers.
- Featured in text book Cartography by Kenneth Field. Esri Press.

2017

• Innovative Creator and Technologist Weili Shi To Speak At Monmouth University. September 27, 2017. New Jersey Stage.

2016

- Shi Weili—Generative Shanshui Paintings Based on Geographic Information. Interviewed by **OF COURSE**. (In Chinese)
- *His Thesis is a Shanshui Painting of Manhattan, New York Generated By Code*. Interviewed by **QDaily**. (In Chinese)
- 'Observe the Heart' Creates Beautiful Visuals from Meditating Brains. MindFullyAlive.