

# Shano Liang

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## EDUCATION

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### PhD in Computational Media

Aug 2021 - Present

Worcester Polytechnic Institute (WPI), Worcester, MA

Advisor: Prof. Lane Harrison. External Mentor: Phoebe Toups Dugas.

Former Advisors: Prof. Rose Bohrer, Prof. Jennifer deWinter and Prof. Gillian Smith.

### Master of Science in Interactive Media & Game Development

Aug 2019 – Dec 2021

Worcester Polytechnic Institute (WPI), Worcester, MA

Advisors: Prof. Gillian Smith

### Bachelor of Fine Arts in Animation

Sept 2014 – May 2018

Hubei Institute of Fine Arts (HIFA), Wuhan, Hubei Province, China.

## RELEVANT SKILLS AND COURSEWORK

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**Digital Art and Audio:** Autodesk 3ds Max, Autodesk Maya, Maxon Zbrush, Adobe Creative Suite, Adobe Substance 3D Suite, Live2D, Spine 2D, DragonBones, FL Studio

**Programming:** C#, Python, C++

**Software and Tools:** ReVISit, Unity, Unreal, GitHub, Unity Cloud, Jupyter Notebook, Vega Library, Microsoft Office Suite

**Courses:** Human-Computer Interaction, Multidisciplinary Research Methods in Computational Media, Tangible and Embodied Interaction, Design of Interactive Experiences, Ideology and Marginalized Culture in Media, Culture in Interactive Media Design, Visual Communication Design, Filmmaking and Post Editing, Animation, 3D Modeling, 3D Game Art, 2D Game Art

## PUBLICATIONS

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### Journal Article

[J4] **Shano Liang**, Michelle V. Cormier, Phoebe O. Toups Dugas, and Rose Bohrer. The Three Steps to Trans Death: Introducing Trans Cyber-Necropolitics in Digital Media. ACM Transactions on Computer-Human Interaction (TOCHI). 2025. <https://doi.org/10.1145/3745767>

[J3] **Shano Liang**, Max Chen, Phoebe O. Toups Dugas, Gillian Smith, and Rose Bohrer. The Collaborative Sensemaking Play of Jubensha Games: A Deconstruction, Taxonomy, and Analysis. Journal of ACM Games: Research and Practice, 2025. <https://doi.org/10.1145/3721121>

[J2] **Shano Liang**, Michelle V. Cormier, Rose Bohrer, Phoebe O. Toups Dugas. Analyzing Trans (Mis)Representation in Video Games to Remediate Gender Dysphoria Triggers. Proceedings of the ACM on Human-Computer Interaction, issue CHI PLAY '23, Stratford, Canada. Association for Computing Machinery, New York, NY, USA, 22–28. <https://doi.org/10.1145/3611034>

[J1] **Shano Liang**, Michael A. DeAnda. Review of Poetic Operations: Trans of Color Art in Digital Media by micha

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cárdenas (Duke University Press). *Lateral*, Journal of the Cultural Studies Association, Vol. 11, No. 2, Fall 2022.  
<https://www.jstor.org/stable/48749196>

### Conference Papers

[C6] **Shano Liang**, Michelle V. Cormier, Rose Bohrer, Phoebe O. Toups Dugas. Designed & Discovered Euphoria: Insights from Trans-Femme Players' Experiences of Gender Euphoria in Video Games. *Proceedings of the ACM on Human-Computer Interaction (CHI)*, 2025, Yokohama, Japan. Association for Computing Machinery, New York, NY, USA, 22–28. <https://doi.org/10.1145/3706598.3714081> (**Award of Honorable Mention for Best Paper**)

[C5] Michelle V. Cormier, **Shano Liang**, Bill Hamilton, Nicolas LaLone, Rose Bohrer, Phoebe O. Toups Dugas. This Game SUX: Why & How to Design Sh@\*!y User Experiences. *Proceedings of the ACM on Human-Computer Interaction (CHI)*, 2025, Yokohama, Japan. Association for Computing Machinery, New York, NY, USA, 22–28. <https://doi.org/10.1145/3706598.3713246>

[C4] Phoebe Toups Dugas, Bhavani Seetharaman, Rebecca J. Fleming, **Shano Liang**, Don Samitha Elvitigala, Jennifer Rode, Nicolas LaLone. 2025. Mobile Maps Continue to Fail Pedestrians: Synthesised Reflective Auto-Aggro-Ethnographies of Walking. In *Extended Abstracts of the Human-Computer Interaction (CHI) Conference*, 2025, Yokohama, Japan. Association for Computing Machinery, New York, NY, USA, 22–28. <https://doi.org/10.1145/3706599.3716217>

[C3] Rose Bohrer, **Shano Liang**, Michelle V Cormier, Takao Fujii, Phoebe O Toups Dugas, Rua Mae Williams, Amy J Ko, Katie Seaborn, and Oliver L Haimson. Transnational lgbTq+ SIG. *ACM CHI '25*, Yokohama, Japan, April - May 2025. <https://doi.org/10.1145/3706599.3716287>

[C2] **Shano Liang**, Max Chen, Phoebe Toups Dugas, Gillian Smith and Rose Bohrer. Exploring the Complexity of Jubensha: A Taxonomy and Analysis of Chinese Murder Mystery Role-Playing Games. *Foundations of Digital Games (FDG '24)*, Worcester, MA, USA, May 2024.

[C1] Max Chen, **Shano Liang**, and Gillian Smith. 2023. Stackable Music: A Marker-Based Augmented Reality Music Synthesis Game. In *Companion Proceedings of the Annual Symposium on Computer-Human Interaction in Play (CHI PLAY Companion '23)*. Association for Computing Machinery, New York, NY, USA, 22–28. <https://doi.org/10.1145/3573382.3616071>

### Workshop

[W3] Rachel Donley, **Shano Liang**, Ari Gass, and Anne Sullivan. Workshop on Queer Play. *Foundations of Digital Games (FDG '24)*, Worcester, MA, USA, May 2024

[W2] **Shano Liang**. Transgender representations in online video game social interactions. *DIGRA 2022: The 14th Digital Games Research Association Conference – Workshop: Bringing Together, Diversifying, And Decolonizing Game Worlds*, July 2022.

[W1] **Shano Liang**. The Impact of Juvenile Video Gaming Restrictions. In *Panel: A Chinese Gaming Cultural Revolution: Contemporary Gaming Cultures and the Communist State*. *Canadian Game Studies Association Annual Conference*, June 2022.

### Presentations

[P2] Robert Dempski, Claire Li, Max Chen, **Shano Liang**. Integrating Biophysics Immersive Learning Tools Across Campus. *Building a Network of Biophysics Education*, Virtual, June 2022

[P1] Robert Dempski, Andrew Texeira, Claire Li, **Shano Liang**, Max Chen. Integrating Immersive Learning Tools across Campus and Beyond. *Advanced Manufacturing and Processing Conference*, Washington DC, June 2022

### PROFESSIONAL EXPERIENCE

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**Research Assistant**, WPI Computer Science Department, Worcester, MA.  
May 2023 - Present

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- Conducted more than 10 research projects and publications in human-computer interaction (HCI), human-centered computing, and data visualization. (1 research paper is under review, and 3 is working in progress)
  - Received an Honorable Mention Award for Best Paper at the ACM Conference on Human Factors in Computing Systems (CHI), one of the most prestigious venues in HCI research.
  - Joined the WPI VIEW Lab in December 2024 as an interdisciplinary research member, bringing fresh perspectives to its collaborative work.
  - Provided the guest lecture on interdisciplinary HCI research in the WPI HCI course.
  - Co-organized the Transnational lgbTq+ SIG (Special Interest Group) of the ACM (Association of Computing Machinery) Conference on CHI (Human Factors in Computing Systems) 2025.
  - Co-organized the Queer Play Workshop of the FDG (Foundations of Digital Games) 2024 conference.

**Teaching Assistant**, WPI Interactive Media & Game Development (IMGD) Program, Worcester, MA.

Aug. 2022 - May 2023

- Assisted instructors and provided mentorship and learning support to students across multiple IMGD courses, including:
  - IMGD-2740: 3D Environmental Modeling (Instructor: Prof. Farley Chery)
  - IMGD-2500: Design of Tabletop Strategy Games (Instructor: Prof. Melissa Kagen)
  - IMGD-4099-D01: Ethics of Creative AI (Instructor: Prof. Gillian Smith).

**Teaching Assistant**, WPI Academic & Research Computing (ARC), Worcester, MA.

Aug. 2021 - May 2022

- Provided AR/VR training & technical consultation to students and faculties.
- Led and Facilitated the 3D virtual tour creation of WPI ARC for WPI labs and PracticePoint.

**Senior Member**, WPI Intentional Design Studio, Worcester, MA

Sept. 2020 - Present

- Provided support and participated in the development of 4 projects on VR/AR apps, mobile app, and game.
- Provided mentorship and technical support to students, fostering a collaborative and innovative environment.

**Startup Company Founder and Lead Producer**, Wuhan KBOOM Network Tech Co. Ltd., Wuhan, Hubei Province, China.

Feb. 2015 - Aug. 2018

- Led and developed an award-winning board game collaboratively with my team.
- Founded a game company to turn game development into a startup.
- Partnered with over a dozen well-known game stores in Wuhan, and over 500 copies of the game were sold in physical form in Wuhan city.

## AWARDS, GRANTS, AND FUNDING

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- Award of Honorable Mention for Best Paper (as 1st author) of the ACM Conference on CHI 2025, Yokohama, Japan.
- WPI Research Assistant (2023-2025): Annual \$31,649 + course credits.
- WPI Teaching Assistant (2022-2023): \$24,345 + course credits.
- WPI Teaching Assistant (2021-2022): \$23,868 + course credits.
- Second Place, China Indie Game Alliance (CIGA) Game Jam in Shanghai (2019).
- First Place, Culture Creative Design Competition for College Students in Hubei Province (2018), China: 80,000 CNY (~\$11,428).
- First Place, Graduation Project Competition (2018): 5,000 CNY (~\$714).
- China National Scholarship (Sept. 2017) (Top 1 in the Department, Top 3 in Institute), Issued by Hubei Provincial Education Bureau & Hubei Institute of Fine Arts, China: 20,000 CNY (~\$2,857).
- Third Place, Hubei Province Universities Creation Youth Student Entrepreneurship Competition

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(2016), China: 10,000 CNY (~\$1,428).

## FEATURED PROJECTS

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### **HCI + Data Visualization: ReVISit Interactive Media** | April. 2025 – Present

ReVISit is a powerful platform for creating, publishing, and disseminating visualization studies. This project builds on my background to explore how to adapt and expand it to support qualitative and human-centered approaches, as well as studies in complex interactive media.

### **(Award-winning) HCI Design for Mental Health: Euphoria Study & Simulator** | Sept. 2024 – Present

Many people experience euphoria, a positive experience for mental health. Interactive media is a powerful engine that offers intimate experiences. This project researches what elements in the user interface produce such an experience and by what dynamics, and builds a simulator to investigate how it can produce expected euphoric experiences and evaluate the design performance.

### **AR/VR for Education: 360 Labs** | Sept. 2020 – Aug. 2022

360 Labs is a collection of mixed reality projects designed for chemistry labs, focused on outreach, safety training, and education. It explores innovative ways to integrate mixed reality into chemistry learning, enhancing student engagement, reinforcing lab safety through realistic, context-specific scenarios, and enabling hands-on practice with training materials displayed on head-mounted goggles.

### **Serious Game and Data Visualization: COVID Control Simulator** | Jan. 2020 - Jun. 2020

This project offers a platform where users can explore and reenact the strategies implemented during the COVID-19 pandemic, presented within a serious game format. The game involves information collected from actual news sources and scientific data, system based on the epidemic model from Lancet, and the team's positionality as native Wuhan city residents. Featured on WPI News.

### **Award-winning Solo-work Indie Game: Rimland** | Dec. 2017 - May 2018

This game development project explores a 3D-to-2D pixel art style and 8-bit audio with modern game technologies. Encouraged by the spirit and momentum of the indie game development boom that emerged in China around 2016, I developed this project solely and entirely from scratch over several months. All aspects of the game—code, art, animations, design, and audio assets—were independently created by me. The project won several awards with a total prize of approximately US\$12,000.

### **Board Game That Launched a Startup Company: World of Summoner** | Feb. 2015 - Aug. 2018

World of Summoner is an award-winning board game blending strategy and murder mystery elements, developed collaboratively with my team, and served as the core project for establishing our studio-sized company, the Wuhan KBOOM Network Tech Co. Ltd. The game was successfully produced and sold in physical form in Wuhan city, with over 500 copies purchased and partnered with over a dozen well-known game stores in Wuhan.

## SERVICES

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### **Reviewer**

Conferences: CHI PLAY '25, CHI '25, FDG'24, CHI PLAY '23

Journal: Journal of Gaming & Virtual Worlds Special Issue

### **Conference, SIG, and Workshop Organization Committee**

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| 2025 | Co-organizer (2 <sup>nd</sup> ), the Transnational lgbTq+ SIG (Special Interest Group) of the ACM Conference on CHI 2025, Yokohama, Japan. |
| 2024 | Co-organizer (2 <sup>nd</sup> ), the Queer Play Workshop of the Foundations of Digital Games (FDG) 2024 conference.                        |

**Other**

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| 2020 – 22 | Committee and Graduate Student Representative, WPI School of Arts & Sciences Student Advisory Council. |
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**TEACHING AND MENTORING EXPERIENCE**

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**Undergraduate Teaching**

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| 2023 | Teaching Assistant: WPI IMGD-4099-D01: Ethics of Creative AI.         |
| 2023 | Teaching Assistant: WPI IMGD-2500: Design of Tabletop Strategy Games. |
| 2022 | Teaching Assistant: WPI IMGD-2740: 3D Environmental Modeling.         |

**Guest Lectures**

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|------|---|
| 2025 | "Interdisciplinary Research Methods in HCI and Interactive Media Study". WPI CS 3041-D01: Human-computer Interaction. |
| 2019 | "Design and Evolution of Roguelike Games". School of Animation, Hubei Institute of Fine Art.                          |