

Visiting Assistant Professor
Dept. of Computer Science and Engineering
University of South Florida (USF), Tampa, FL, USA
Contact: 321-732-9405 ♦ wanwan@usf.edu ♦ wli17@gmu.edu
Personal Website Link: <https://wanwanligmu.wixsite.com/mysite>

RESEARCH INTERESTS

Computer Graphics (CG), Virtual Reality (VR), Augmented Reality (AR), Augmented Virtuality (AV), Edutainment & e-Training, Procedural Modeling, Computational Design, Deep Learning (DL), Sketch-Based Interface (SBI), Brain-Computer Interface (BCI).

EDUCATIONS

George Mason University (GMU)

Fairfax, USA

Ph.D., Computer Science

Graduated in 08/2021

- **Overall GPA:** 3.69/4.0, **Grade:** A-;
- **Thesis:** Personalizing VR Training Experiences through Optimization

University of Central Florida (UCF)

Orlando, USA

MS.Eng., Computer Science

Graduated in 05/2016

- **Ray Tracing:** 97.6/100.0, **Grade:** A;
- **Computer Graphics:** 95.56/100.0, **Grade:** A;

Harbin Institute of Technology (HIT)

Harbin, CHINA

B.Eng., Computer Science

Graduated in 07/2014

- **TOEFL:** R 24, S 20, L 19, W 24, Total 87;
- **GRE:** V 154 (62%below), Q 161 (81%below), AW 3.0 (14%below).

PUBLICATIONS

- **Wanwan Li** Animaton: Scriptable Finite Automaton for Animation Design in Unity3D Game Engine. International Conference on Computer Graphics and Digital Image Processing (CGDIP 2022)
- **Wanwan Li**. Simulating Virtual Construction Scenes on OpenStreetMap. International Conference on Virtual and Augmented Reality Simulations (ICVARS 2022).
- Changyang Li, **Wanwan Li**, Haikun Huang, Lap-Fai Yu. Interactive Augmented Reality Storytelling Guided by Scene Semantics. ACM Transactions on Graphics (Proceeding of SIGGRAPH 2022)
- **Wanwan Li**, Behzad Esmaeili, Lap-Fai Yu. Simulating Wind Tower Construction Process for Virtual Construction Safety Training and Active Learning. IEEE Workshop on 3D Content Creation for Simulated Training in eXtended Reality (TrainingXR @ IEEE VR 2022).
- **Wanwan Li**, Haikun Huang, Tomay Solomon, Behzad Esmaeili, Lap-Fai Yu. Synthesizing Personalized Construction Safety Training Scenarios for VR Training. IEEE Transactions on Visualization and Computer Graphics (TVCG 2022).
- **Wanwan Li**. Multi-View NURBS Volume. International Conference on Computer Graphics Theory and Applications (GRAPP 2022).
- **Wanwan Li**. Musical Instrument Performance in Augmented Virtuality. International Conference on Computer Graphics and Virtuality (ICCGV 2022).
- **Wanwan Li**. Make Uber Faster: Automatic Optimization of Uber Schedule Using OpenStreetMap Data. International Conference of Eurasia Graphics (EAG 2021).
- **Wanwan Li**. Simulating Turing Machine in Augmented Reality. International Conference on Virtual and Mixed Reality Interfaces (ICVRMR 2021).
- **Wanwan Li**. Pen2VR: A Smart Pen Tool Interface for Wire Art Design in VR. Smart Tools and Applications in Graphics (STAG 2021).
- **Wanwan Li**. Make OS Home: Home-Like Operating System in Virtual Reality. XR-Driven Digital Transformation of Design, Training, and Education (DigitalXR 2021).

- **Wanwan Li.** IslandPaint: Digital Painting Floating Island Design. Advances on Societal Digital Transformation (DIGITAL 2021).
- **Wanwan Li.** Procedural Modeling of the Great Barrier Reef. International Symposium on Visual Computing (ISVC 2021).
- **Wanwan Li.** Fast Fluid Thermodynamics Simulation by Solving Heat Diffusion Equation. International Journal of Computer Graphics & Animation (IJCGA 2021).
- Kelian Li, **Wanwan Li.** MusicTXT: A Text-based Interface for Music Notation. Ubiquitous Music Conference (Ubimus 2021).
- Biao Xie, Huimin Liu, Rawan Alghofaili, Yongqi Zhang, Yeling Jiang, Flavio Destri Lobo, Changyang Li, **Wanwan Li**, Haikun Huang, Mesut Akdere, Christos Mousas and Lap-Fai Yu. A Review on Virtual Reality Skill Training Applications. Frontiers in Virtual Reality (Front. VR 2021).
- **Wanwan Li.** Image Synthesis and Editing with Generative Adversarial Networks (GANs): A Review. World Conference on Smart Trends in Systems Security and Sustainability (WorldS4 2021).
- **Wanwan Li**, Biao Xie, Yongqi Zhang, Haikun Huang, Elisa Ogawa, Tongjian You, Lap-Fai Yu. Exertion-Aware Path Generation. ACM Transactions on Graphics (Proceeding of SIGGRAPH 2020).
- **Wanwan Li**, Javier Talavera, Amilcar Gomez Samayoa, Jyh-Ming Lien, Lap-Fai Yu. Automatic Synthesis of Virtual Wheelchair Training Scenarios. IEEE Virtual Reality (VR 2020).
- Yujia Wang, Wei Liang, **Wanwan Li**, Dingzeyu Li, Lap-Fai Yu. Scene-Aware Background Music Synthesis. ACM Multimedia (ACM MM 2020).
- **Wanwan Li.** The Implementation of Image Quilting Based Texture Synthesis Algorithm in Java Language[J]. Journal of Qiqihar University (Natural Science Edition), 2014, Vol.30 No.2:48-52.
- **Wanwan Li.** The Principles and Implementation of Solar System Simulation Based on Java3D[J]. Natural Science Journal of Harbin Normal University, 2013, Vol.29 No.6:53-56.
- **Wanwan Li.** The Principal and Implementation of Action Recognition Based on Chessboard-Tree Algorithm[J]. CC News, 2013(12):141-126.

RESEARCH EXPERIENCES

Department of Computer Science, GMU

Fairfax, USA

Ph.D. Research

01/2019-08/2021

Academic Advisor: Craig Yu / Assistant Professor

- Personalizing VR Training Experiences through Optimization

Department of Civil Engineering, GMU

Fairfax, USA

Summer Research

05/2020-08/2020

Supervisor: Craig Yu / Assistant Professor

Co-Supervisor: Behzad Esmaeili / Assistant Professor

- Wind Tower Construction Safety Training in Virtual Reality

Department of Computer Science, GMU

Fairfax, USA

Ph.D. Research

01/2017-05/2018

Supervisor: Yotam Gingold / Associate Professor

- FurnSketch: Drawing Flatpack Furniture Designs

Department of Mechanical Engineering, UCF

Orlando, USA

M.S. Research

08/2015-05/2016

Supervisor: Shawn Putnam / Assistant Professor

- GPU Accelerated Fluid Simulation by Solving Navier-Stokes Equations

Department of Computer Science, UCF

Orlando, USA

M.S. Course Design

08/2014-05/2015

Supervisor: Sumanta Pattanaik / Associate Professor

- Scene Mapping and Photon Mapping: Their Implementation and Application

School of Computer Science and Technology, HIT

Harbin, CHINA

Graduation Design

01/2014-05/2014

Supervisor: Mingying Xin / Associate Professor

- The Design of Java^b Programming Language, Compiler, Virtual Machine and Its Applications on the Parametric Modeling For Architecture Design

TEACHING EXPERIENCES

Graduate Teaching Assistant (GTA).

Fairfax, USA

- **Spring 2019:** Computer Programming for Engineers [CS 222]
- **Fall 2018:** Formal Methods and Models [CS330]
- **Spring 2018-Fall 2016:** Intro. to Low-level Programming [CS 262]

01/2019-05/2019

08/2018-01/2019

08/2016-05/2018

INDUSTRY EXPERIENCES

Harbin Tarena Tech. Co., Ltd.

Harbin, CHINA

Undergraduate Short-Term Internship

07/2013-08/2013

Supervisor: Zhaozhi Wang / Mgr. of Harbin Tarena Tech. Co., Ltd.

- Learned advanced skills of HTML, Java Bean and JSP;

Undergraduate Symphony Orchestra, HIT

Harbin, CHINA

Long-Term Musical Instrument Performance Experience

09/2010-08/2013

Conductor: Shiyong Tian/ Violinist in China

- Attended the rehearsal and concert held by HIT as a cello player;

SKILLS

- **Programming Skills:** Unity(3D), Python, VB, C/C++, C#, Java(3D), OpenGL/CL, WebGL/CL;
- **Multimedia Skills:** Photoshop, After Effects, Premiere, C4D;
- **Music Skills:** Violoncello, Jazz drum, Piano, Music composition.
- **Art Skills:** Oil painting, Pencil sketch, Water color;
- **Others:** Ping pong, Billiards, Skating;

REFERENCES

Ph.D. Advisor

- **Dr. Lap-Fai (Craig) Yu**
Assistant Professor, Department of Computer Science
Volgenau School of Engineering, George Mason University

Email: craigy@gmu.edu

Collaborators

- **Dr. Jyh-Ming Lien**
Associate Professor, Department of Computer Science
Volgenau School of Engineering, George Mason University

Email: jmlien@gmu.edu

- **Dr. Behzad Esmaeili**
Assistant Professor, Department of Civil Engineering
Volgenau School of Engineering, George Mason University

Email: besmaeil@gmu.edu