GUANGYU DU

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Beyond architectural design, I also explore creative coding for spatial and temporal experience though computational and interactive multimedia. My interest lies in the hybrid of physical and virtual world that helps forge lasting social connections. I believe the experiences that make humans human, such as consolidating memories, awakening emotions and building relationships... will see new opportunities in the responsive and immersive environments brought by emerging technologies, through collaborative interactions with augmented physical world and shared explorations in imagined virtual world.

EDUCATION

Harvard University, Graduate School of Design
Cambridge, MA
Master in Design Studies (MDes Technology), anticipated May 2020
Courses: Computational Design, Data Visualization, Computer Graphics, Data Structures and Algorithms, Computer Vision, Immersive Landscape, Digital Media: Ambience, Responsive Environments, Public Projection

Massachusetts Institute of Technology
Cambridge, MA
Cross-registered in 2019: Intelligent Multimodal User Interfaces, Artificial Intelligence, Architecture in Motion Graphics

Tsinghua University, School of Architecture
Beijing, CHINA
Bachelor of Architecture (B. Arch), GPA 3.95/4, Outstanding Graduate, Class of 2017, Future Scholar Fellowship. Coursework: Architectural and Urban Design, Parametric Design, Media Calculation and Artistic Expression

SKILLS

Computational Design C# | Python | Rhino | Grasshopper
Data Visualization JavaScript | HTML/CSS | d3.js
Interactive Media C# | Unity | Cinema4D | C++ OpenGL | Three.js
Algorithms Python | NumPy | SciPy | OpenCV
Adobe After Effects| Premiere | Photoshop | InDesign | Illustrator

EMPLOYMENT

Research Assistant at Office For Urbanization, Harvard GSD
Cambridge, MA, 2020 Spring
Design digital workflows for generative urban design in the form of an web interface and backend algorithms (including DCGAN, Pix2Pix, StyleGAN).

Teaching Assistant for Computational Design, Harvard GSD
Cambridge, MA, 2019 Fall
Host office hours for SCI6338 Introduction to Computational Design (63 students), instruct students projects using Rhino & grasshopper, Unity & C# , Web & JavaScript, Processing, P5.js, D3.js. Organized student projects final review.

Software Engineering Intern, Microsoft Research Asia
Beijing,CHINA, 2019 Summer
Developed a new mixed reality showcase for HoloLens 1 & 2. Incorporated Azure Spatial Anchor and ASP.NET web application for sharing persistent experience across devices. Created 3D assets and programmed MR interactions.

Architectural Intern, Robert A. M. Stern Architects
New York, NY, 2016 Summer
Assisted in the development of House in Skaneateles Project. Revised and produced detailed design drawings and schedules, created the DD sheet set.

PROJECTS

Xenolith - Me in My Virtual World
Harvard GSD, 2019 Fall. Mixed reality experience built with Unity and Adobe Premiere. Mixing human subjects into surreal virtual spaces.

Efface - Gaze Interactive Computational Media
Harvard GSD, 2019 Spring. Gaze interactive computational media programmed in Unity, C# and GLSL Shader, build with Tobii Eye Trackers.

Engram - Immersive Virtual Landscape
Harvard GSD, 2018 Fall. Virtual reality designed in Cinema4D and Unity for an immersive experience of flying over an imaginary land.

Loneliness: A Social Story - Interactive Data Visualization
Harvard GSD, 2019 Fall. Web-based data visualization with JavaScript/HTML/CSS and D3.js. “Best Project Award” Second Place.

Evolving Decay - Computational Olympic Park Design
Tsinghua School of Architecture, 2017 Fall. Parametric urban design with Rhino, Grasshopper and Python, based on chaotic system.

CaveArch - Intelligent Interactive Spatial Design Interface
Tsinghua Department of Computer Science and Technology, 2016 Fall. Led a three-person team on ideation, research and coding (python, C++) on intelligent Interface for interactive spatial design.

EXPERIENCE

New England Graduate Media Symposium 2019
Displaying Artist for Unity Project Engram.

Harvard Innovation Lab Connect Program 2019
Venture Journey has been selected to Harvard Innovation Lab Connect Program 2019 with $2000 AWS credit.

MIT Hacking Arts 2018
Awarded MIT Hacking Arts 2018 Wayfair’s Prize and Fritz’s Prize for Agora, an AR Art platform for create and share location-based art.

Intelligent Building System Research
Tsinghua School of Architecture, 2016 Fall. Conducted robotic gripper design research, coded robotic arm demo for getting industry funding.

XWG Archi-Studio, Beijing, China
Computational Design, 2017 Fall. Participated in Sunshine Kaidi Industrial Park Project Schematic and Development Design Phases.

Beijing Design Week, Beijing, China
Installation Design, 2016 Fall. Assisted in the structural design of ‘Swarm Nest’, an interactive installation in Baita Si Design Exhibition.