

XUHAO DU

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EDUCATION

Carnegie Mellon University - Entertainment Technology Center Pittsburgh, PA
May. 2020
Master of Entertainment Technology in Computer Science

- Coursework: Computer Graphics, Data Structure and Algorithm, Java for Application Programmer

University of Science and Technology of China - School of Computer Science and Technology Hefei, China
Jul. 2018
Bachelor of Engineering in Computer Science

- Coursework: Operating System, Principle of Compilers, Computer Architectures

WORK EXPERIENCE

Visual Concepts Novato, CA
Software Engineer Aug. 2020 – Now

- Implemented pathfinding system for NPC's navigation in open world using C++.
- Designed and accomplished automation system for testing stability in game.
- Researched and maintained game's collision system to improve user experience.

Carnegie Mellon University - Alice Project Pittsburgh, PA
Software Developer Jan. 2020 – May. 2020

- Fixed resolution issue on different devices by adding auto fit feature for pages using HTML.
- Back-end code refactoring for better structure and readability using JavaScript.
- Solved black screen issue on pages by writing shell script to allow local files on different browsers.

ACADEMIC PROJECTS

Carnegie Mellon University Pittsburgh, PA
Project Cycurity Fall 2019

- Collaborated with CMU Software Engineering Institute to build an escape-room-like game interface.
- Implemented prototypes in Unity for team to polish the game design.
- Built application that combined cybersecurity challenges and game puzzles.
- The product was used for Presidents Cup Cybersecurity Competition for 25 participants and shown in live streaming.

Scotty3D Fall 2019

- Implemented a mesh editor for modeling, subdivision, and mesh processing using half-edge mesh.
- Created a ray tracer to render image using path tracing algorithm with shadow, materials, and light.
- Built an animator with skeleton kinematics, linear blend skinning, and physical simulation.

Project 143 Spring 2019

- Collaborated with designers and artists to make an experience for the Fred Rogers Center.
- Implemented interactions and networking in Unity using C#.
- Completed several prototypes and kept on iterating on programming and design.
- The game is now in a permanent installation in the Fred Rogers Center.

University of Science and Technology of China Hefei, China
Shout App Spring 2018

- Built a location-based chat app on Android including local chat and direct messages.
- Implemented back-end functions and built a server for analytics and data storage using Python.

PERSONAL PROJECTS

Home Bound – Global Game Jam 2019 Spring 2019

- Implemented attraction mechanism and player control for a collaborative platformer game in Unity.
- Received strong positive receptions from twenty people in user experience and game design.

SKILLS

Programming Languages: C++, C#, Java, Python, C, JavaScript, HTML, Verilog

Tools: Unity, Unreal 4, Perforce, Git, PixiJS