

Daniel Yu

Game Programmer

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EDUCATION

University of Southern California

Los Angeles, CA

B.S. Computer Science (Games); Minor: Cinematic Arts

Aug. 2021 - Present

GPA: 3.95

Expected Graduation Date: May 2025

Relevant Coursework: Calculus II, Linear Algebra and Differential Equations, Principles of Software

Development, Intermediate Game Design and Production, Video Game Programming, Advanced Gameplay Programming, Introduction to Artificial Intelligence, Computer Graphics

SKILLS

Computer Programming: C++, C#, Java, Python, Web

2D Graphics: Adobe Illustrator, Adobe Photoshop

Game Development: Unity, Unreal Engine 5

3D Graphics: Autodesk Maya

Sound: Wwise, Ableton Live

IDE's: Visual Studio Community, Android Studio

WORK EXPERIENCE

Student Worker - USC East Asian Studies Center

Aug 2023 - Present

- Managed Instagram and Facebook accounts by designing and producing weekly graphics
- Updated old website pages to be more visually cohesive and up-to-date
- Assembled and maintained information about upcoming events and job opportunities
- Assisted in daily operations by taking calls, preparing events, and directing guests

Video Technician, Technical Assistant - Trojan Event Services

Oct. 2021 - Aug. 2023

- Set up and operated video cameras and video switchers during live events
- Assisted staff in the transportation of equipment

Orientation Advisor - USC Office of Orientation Programs

Mar. 2022 - Jan. 2023

- Collaborated with a partner to facilitate presentations and activities for groups of 20 students twice a week
- Held one-on-one talks with incoming students over Zoom and directed guests 3 times every week
- Communicated with co-workers and provided customer service to students and parents daily

PROJECTS

Programmer, Producer - Sorcerer Smackdown

Jan 2024 - Present

- Implemented magic projectile charge, release, motion, and collision
- Implemented a quick time event sequence when projectiles collide that tracks the players' keyboard inputs
- Implemented a save and load system that tracks which characters and maps have been unlocked
- Provided mentorship to 1-2 new programmers through weekly pair programming

Programmer, Designer - [Free Will](#)

May 2023 - Present

- Implemented a save and load system that saves data to a user-modifiable JSON file in Unity C#
- Implemented data persistence between levels and a level manager to control scene transitions
- Created functionality for reading, writing, and correcting a text file to create an in-game invisible maze

- Implemented a mouse cursor-repelling force within a radius around an in-game enemy
- Programmed a sequence of external dialog boxes opening and respawning outside of the game window
- Implemented branching narrative functionality and all final ending sequences

Sound Designer - [Sorelle](#)

Apr. 2023 - Present

- Designed the sonic identity and all sound effect assets for a main character using Ableton Live
- Recorded foley, designed UI sounds, and produced minor jingles and stingers
- Adjusted and finetuned various RTPC parameters and effects in Wwise

Programmer, Artist - [Try Not To Hit \[An Unspecified\] Bridge](#)

Mar. 2024

- Implemented 3D drag and drop functionality that retains objects' collision detection in Unity
- Implemented collision-based win/lose conditions
- Created all 3D and 2D art assets
- Implemented all menus, UI functionality, and sound assets

Programmer, Sound Designer - [Unnamed Surgeon Game](#)

Jan. 2024

- Implemented functionality for picking up and placing down interactable items in Unity C#
- Implemented a gradually dimming light that can be reactivated through interaction
- Recorded and implemented voiceover for all sound effects

Sound Lead - [Boo's There?](#)

June 2023 - Dec 2023

- Implemented a layered music system in Wwise that seamlessly adds layers to the BGM track per level
- Implemented a set of clock ticking sounds that vary in intensity depending on the in-game timer
- Hosted group and individual Wwise and Ableton workshops for new team members
- Managed and maintained communication with a team of 5 sound designers weekly
- Integrated Wwise into the Unity project
- Implemented a dialogue sound blip system that plays unique sounds for each letter typed for each NPC, in conjunction with Yarn Spinner
- Wrote Wwise documentation detailing basic Wwise functionality and previously implemented features
- Collaborated with the Design team to create an asset list and establish the game's experience goals
- Communicated with the Programming team to assist in fixing Wwise-related bugs

Programmer - [Portal Recreation](#)

Mar. 2023 - Apr. 2023

- Programmed all core functionality in C++ with the SDL Library
- Implemented an AI state machine to control sentry turret searching, priming, firing, and death
- Utilized view matrices and quaternions to calculate and create portal views
- Implemented player movement with forces, FPS controls, and 3D box collision

Backend Developer - [UScheduler](#)

Feb. 2023 - Apr. 2023

- Created 4 Java Servlets on the backend to allow for access to the MySQL database
- Created input validation for registering, logging in, and creating events
- Implemented functionality to a JDBC connector class to retrieve all events on a specified date
- Created weekly documentation under the Waterfall design methodology

Lead Programmer, Designer, 3D Artist - [Hear Your Fear](#)

Jan. 2023 - Apr. 2023

- Collaborated with one programmer to create a game from conception to release in Unity C#
- Created all 3D models and environments in Autodesk Maya
- Implemented a pathing system in C# that allows for enemies to follow fixed paths
- Implemented player movement
- Worked under the Agile design methodology
- Implemented a layered audio track system using Unity's built-in sound engine
- Implemented a level manager, game manager, and audio manager
- Created and implemented all HUD assets, including a healthbar and hint text
- Facilitated weekly playtests and analyzed player feedback to iterate on the game's design
- Implemented all sound effects and music, and finetuned spatial audio distance attenuation
- Debugged and finetuned the player vision's raycasting
- Optimized performance, memory usage, and file size through texture and mesh compression, polygon reduction, and other graphical improvements

Composer, Sound Designer, Audio Programmer - [Bone Boy](#)

Jan. 2023 - Apr. 2023

- Composed two music tracks in Ableton Live
- Created and recorded various sound effects, including most enemy and NPC sounds.
- Utilized Audacity and Ableton Live for sound mixing and layering
- Implemented sound effects and music into Unity using Audiokinetic Wwise

Composer, Programmer, UI - [Cellulose](#)

Nov. 2022

- Composed and implemented the entire soundtrack, consisting of 4 tracks total, with additional mixing in Audacity
- Programmed the Lives and Score systems, as well as a Game Over state in Unity C#
- Implemented and programmed all UI, including the HUD, main menu, and pause menu
- Implemented a toggle that allows players to switch between 8-bit and non-8-bit soundtracks

Sound Designer, Audio Programmer - [Mom, Please Respect My Privacy](#)

Oct. 2022

- Created sound effects for the player walk cycle
- Created and implemented sound effects for placing and removing various item types
- Ideated that the mother would search while the player hides items simultaneously
- Ideated the light switch mechanic, enabling players to hinder the mother temporarily

Audio Designer - [Ho Ho Who Did It?](#)

Nov. 2021

- Composed the entire soundtrack, consisting of 7 tracks
- Reduced the workload of artists and programmers by suggesting the use of non-square puzzle shapes
- Created sound effects for pushing and pulling puzzle pieces
- Created sound effects for the player walk cycle

EXTRACURRICULARS

Sound Lead, Programmer, Producer - [Open Alpha USC](#)

Jan. 2023 - Present

- Collaborated with a cohort of 40 members to create a game every semester in Unity C#
- Developed sound design and implementation curriculum and led workshops for an audio team of 6

- Provided mentorship to 1-2 new programmers through weekly pair programming
- Created music tracks and sound effects and implemented them into Unity projects through Wwise
- Collaborated with the design team to create an audio asset list for a video game every semester
- Developed Wwise, music theory, and sound design curriculum for new members

HONORS AND AWARDS

Dean's List - *USC Viterbi School of Engineering*

Jan. 2023, June 2023, Jan. 2024

Dean's List - *USC Annenberg School for Communication and Journalism*

Jan. 2022