# Giavanna Lang

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#### **EDUCATION**

## University of Southern California, Viterbi School of Engineering

Expected May 2025

Bachelor of Science in Computer Science (Game Development)

Masters of Science in Computer Science

#### **EXPERIENCE**

## Blizzard Entertainment - Diablo IV: Audio Design Intern

June 2024-September 2024

- Edited and Implemented 600 unique NPC town vocalizations for "Nahantu" region of *Diablo IV: Vessel of Hatred* expansion using tools in proprietary engine, Axe
- Set up random containers with volume and pitch modulation in Wwise to ensure unique vocal expressions during any given play session; Utilized Wwise Real-Time Parameter Control (RTPC) for *Diablo IV* "SoundMod" values, associating Wwise audio containers to distinct actors in Axe engine
- Designed and implemented 20+ distinct sound effects for "Spiritborn" class armor set abilities in Wwise and Reaper

## Activision/Sledgehammer Games - Call of Duty Modern Warfare 3: Audio Design Intern June 2023-August 2023

- Proficiently operated proprietary audio implementation tools like APE, Audio Manager, and Sound Monitor within the CoD MW3 framework to seamlessly incorporate physics-based destruction sound effects into multiplayer maps
- Demonstrated strong audio editing skills by refining and editing 6 field recording sessions, while meticulously
  adding metadata for seamless integration into Sledgehammer Games Audio Libraries

## USC School of Cinematic Arts - Game Design Workshop: Student Assistant

August 2022-May 2023

Student aide who assisted with weekly lectures and gave design feedback to student prototypes

#### **PROJECTS**

## USC Advanced Games Project - Sorelle: Creative Director

April 2023-September 2024

- Led team of 54 student volunteers developing a captivating stylized 3D Puzzle-Platformer in Unreal Engine 5
- Directed communication, delegation, and collaboration across all core development teams, ensuring the execution of the game's creative vision
- Led the design of core gameplay mechanics including unique character powers; oversaw and implemented level designs, and crafted unique environmental puzzle interactions using C++ and Blueprint Scripting
- Created all in-game cutscenes and contributed as an environment artist to set dress the town, realizing a stylized, magical world

## USC Advanced Games Project - Manas: Technical Audio Lead

May 2022-May 2023

- Led the technical implementation of the audio systems for the third-person historical action game, employing **Unreal Engine 5's Blueprint Scripting** and **FMOD** to integrate and optimize all audio assets
- Utilized FMOD dynamic parameters in Unreal Engine scripts to create a state-changing music system reactive to the player's conditions in combat and game progression, resulting in an action-packed auditory experience
- Applied knowledge of Unreal Engine to implement interactive ambience systems, animation-timed sound effects, cutscene audio, and spatialized sounds, crafting an immersive, realistic, and culturally accurate soundscape

## Student Project - Egress: Project Lead and Engineer

April 2023–May 2023

- Directed development of randomized puzzle game in Unity/C#, enhancing gameplay with algorithmic programming
- · Programmed an efficient search algorithm for optimal move calculation, enhancing gameplay strategy
- Implemented a toolset to generate distinct portal colors using CIELab colorspace, improving visual clarity and player navigation

## Open Alpha USC - *Equinox*: Enginieer and Audio Designer

August 2021-December 2021

Programmed miniboss AI behavior and player mechanics; composed Distant Memory and Lunar Reflection

## SKILLS & LANGUAGES

Computer Languages & Game Engines: C++, C#, Java, C, Python, Unreal Engine, Unity

Software: Perforce, Git, Reaper, Wwise, FMOD, Adobe Suite, Autodesk Maya

**Relevant Coursework:** Data Structures & Object-Oriented Programming, Video Game Programming, Unreal Gameplay Programming, Music Technology

#### **AWARDS**