

JASON A. BUZZELL

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WORK EXPERIENCE

Audio Systems Engineer

Firaxis Games

Sparks Glencoe, MD

June 2022 - September 2025

- Worked on several AAA titles while at Firaxis (*Marvel's Midnight Suns*, *Sid Meier's Civilization VI*, *Sid Meier's Civilization VII*)
- Developed alongside the Audio and Engineering teams on various new systems, implementation or fixing bugs on multiple platforms
- Implemented media using Wwise (audio middleware), both integrated into Unreal and with the proprietary engine for the *Civilization* franchise (built in C++)
- Wrote code and scripts in C++, C# and Python, using WAAPI/WAQL (SQL for Wwise) to make authoring changes to Wwise projects, such as a custom EBP (Event-Based Packaging) generator to handle runtime assets, or general database cleanup by query, among others
- Worked with the Gameplay, UI and Tools team on interdepartmental solutions, picking up any new tools (Javascript, Unreal Sequencer, VFX scripting, etc.) to expedite the process

Software Developer

Northwestern University, XYZ Multimedia LLC

Evanston, IL

November 2020 - Present

- Founded XYZ Multimedia LLC and developed multiple products under said company, as listed below:
 1. *Artivox*: A digital synthesizer that can generate any sound, with a focus on vocal synthesis (i.e. singing without any samples). Developed in C++ with JUCE framework, AWS (RDS, Lambda) for licensing, and Stripe API for purchasing. Released the product on Windows and macOS (Catalina, Big Sur, Sonoma). Awarded the Academic Year Undergraduate Research Grant from Northwestern University for *Artivox*'s development.
 2. *Artitalk*: A conversational chatbot manager (i.e. multiple chatbots speaking with the user and themselves at the same time). Developed in Python using general NLP knowledge and HMMs (Hidden Markov Models) built from scratch. Can pair with *Artivox* and send phonetic text (i.e. IPA) for *Artivox* to generate a voice to (e.g. NPC generative dialogue)
 3. *[puppet]*: A strategic video game where the player has to outsmart and defeat NPCs that learn from previous iterations. Developed in Python originally, then ported to Unity Engine (C#) with Wwise integration. Also uses HMMs and multivariate calculus to determine best scoring outcomes and probability of a successful iteration.

EDUCATION

Northwestern University

Bachelor of Music in Music Composition & Bachelor of Arts in Economics, Minor in Music Technology

GPA: 3.6/4.0

June 2021

West Chester University and Berklee College of Music

Non-Degree Graduate Student in Computer Science courses

September 2021

TECHNICAL SKILLS

Programming: C++ (preferred language, 5 years), Python (7 years), C#, C, Javascript, Typescript, HTML, SQL

AI: LLM, NLP, HMM (Hidden Markov Model)

Cloud/Networking: AWS (EC2, RDS, Lambda, VPC), Stripe API, Perforce, Git, Git LFS