William Ozeas

C# | C++ | Unity | Standard ML | React | Git | Perforce | FMOD | Max/MSP

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Education

Carnegie Mellon University, Pittsburgh, PA, Graduated May 2023

Bachelor of Computer Science and Arts: Computer Science & Music Composition, Minor in Game Design, GPA: 3.98

Relevant Coursework

Computer Game Programming | Game Design, Prototyping, & Production | Computer Graphics | Parallel & Sequential Data Structures & Algorithms | Intro. Computer Systems | Computer Music | Matrices & Linear Transformations | Calculus in 3D

Work Experience

Teaching Assistant, 18-090 Twisted Signals: Multimedia Processing at CMU; Pittsburgh, PA — January-May 2023
- Graded projects and assisted students for multimedia processing class in Max/MSP.

Research Assistant, Entertainment Technology Center at Carnegie Mellon University; Pittsburgh, PA — June-August 2022
- Developed Unity game for President's Cup government cybersecurity competition. Worked with 4 other programmers in a team of over 20 using C#, Perforce, and Mirror for networking the online game.

Software Development Intern, Amazon; Remote (Seattle, WA) — June-August 2020
- Implemented React front end of internal website to help Amazon monitor delayed orders from 3rd party sellers.
- Gained experience working in teams and learning new technology at large companies. Collaborated with other interns and employees to design an API to access an order database.

Projects

Games

Pig's Blood - Gameplay, Tools Programming, Sound | *Unity, C#*
- Developed detective visual novel with an interdisciplinary team of six as the lead programmer and sound designer.
- Implemented scripting pipeline for visual novel effects and gameplay logic using Yarn Spinner.

2023

Tanks In Advance - Team Co-Lead, Gameplay Programming, Technical Artist | *Unity, C#*
- Managed programming and sound teams & implemented replay main mechanic using command pattern.
- Created several special effects & solved shader/model issues as technical artist.

2023

Giuseppe - Gameplay, Graphics, Audio Programming | *Unity, C#*
- Made a time-traveling puzzle game with an interdisciplinary team of six as the lead programmer and sound designer.
- Implemented several time-travel mechanics and designed an accompanying URP render feature & screen-space shader.

2022

Aperture - Graphics, Systems, Gameplay, Audio Programming | *C++*
- Created photo-taking game in team of three in C++ with SDL and OpenGL in CMU Computer Game Programming.
- Personally implemented hardware occlusion culling, forward lighting, shadow mapping, picture grading & object detection, texture & csv pipelines, GLSL shaders for camera depth of field, fog, texturing, & color grading, and more.

2022

Dimensional Rift - Team Co-Lead, Gameplay & Audio Programming | *Unity, C#, FMOD*
- Managed Programming and Sound teams as Co-Lead, won "Best Sound" and "GCS Gold" (audience choice) awards.
- Implemented building system and dialogue pipeline and helped team members with other systems.

2022

Polyrhythm - All Roles | *Unity, C#, FMOD*
- Created rhythm game solo project as a programmer, artist, and musician
- Designed event system to synchronize music and gameplay using FMOD callbacks.

2021

Other

Scotty3D - Graphics Programming | *C++*
- Implemented several features in a 3D modeling software, including several mesh transformations, realistic lighting using path-tracing, and animation rigging.

2021

Malloc Project - Systems Programming | *C*
- Implemented memory allocator in C with more efficient throughput and utilization on test cases than the standard C library through aggressive optimization.

2019

Activities

Carnegie Mellon Game Creation Society - Consultant, Co-Lead, Programmer, Sound Designer, Composer — 2019-Present
- Created 8 games on teams of 6-14 each semester at Carnegie Mellon. Co-lead two games.
- Held "Consultant" executive role, where I helped organize club and gave a talk about FMOD and adaptive audio.