

Kenechukwu Umelo | Gameplay Programmer

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PROFESSIONAL EXPERIENCE:

King Crow Studios | Programmer II

Mar 2022 - Dec 2023

B52-VRTP

- Successfully transitioned the existing project to use the new XR plugin tool, expanding support for more headsets.
- Revamped all interactive UI logic using a custom interactive script to support touch features.
- Implemented multiplayer logic to synchronize event calls and positions for 20+ GameObjects on the server network.
- Implemented over 10+ new training simulations to train for specific areas of the aircraft.
- Fixed recurring bugs from post-playtesting sessions to maintain high quality and polish.

S.T.E.P.S TRAINING XR

- Designed 2 location-based fire-training simulations to teach fire safety procedures to users
- Implemented interactive objects and fire tracking state systems in Unity.
- Full ownership in creating the weapons training mode, from concept to completion.

Mall Cop Madness (Unreleased)

- Programmed several gameplay mechanics and 5 minigames from concept to completion.
- Worked on several settings options, including audio input/output, volume mixers, and in-game player tracking.
- Built an NPC creation tool in Unity to reduce NPC implementation time by 30%.
- Collaborated closely with engineers to implement and iterate on multiplayer systems.
- Developed debug tools covering progression on mini-games and player traversal points, improving playtesting time.

Lucid Dream | Unity Programmer

Aug 2021 - Feb 2022

Confidential Projects

- Implemented various XR interaction systems for training experiences on Meta Quest using Unity and C#.
- Collaborated with senior engineers to iterate and extend features on proprietary XR systems to support client-requested work.
- Debugged and polished several AR applications and mobile games utilizing Xcode and Android Studio.

Healthy Holidays

- Led the 5-week development cycle, from concept to completion to shipping to PC and mobile devices.
- Implemented the core sequence matching, core game loop, and round systems.
- Programmed custom orbs exposing audio, SFX, VFX, and animation variables to allow for content creation.

PROJECTS:

Flocking Behaviors System — Technical Showcase — AI Programmer — Solo Project — Unreal Engine

- Built a boids system utilizing Unreal C++, implementing behaviors such as Alignment, Cohesion, and Separation.
- Implemented custom obstacle avoidance logic utilizing dot product and line tracing to constrain the angle of view.
- Crafted the Boids Manager to allow for custom boundaries and behaviors to be tweaked in different scenes.

Unity Music Player — Technical Showcase — Tools Programmer — Solo Project — Unity

- Built and designed a custom music player inspector to prevent users from leaving the application.
- Implemented a drag-and-drop feature to allow MP3 files to be uploaded and initialized into the music player instantly.
- Created an Editor Window for music settings, allowing users to add, delete, or sort songs to their preferences.

Don't Feed The Animals — Cozy Crafting — Programmer — Game Jam — Team of 5 — Unity

- Implemented ice cream machine systems, draggable physics, crafting logic, and unlockable ice cream flavors or ingredients.
- Created a base scriptable object recipe to allow designers to create multiple flavors to feed the recipe book system.

SKILLS:

LANGUAGES/SCRIPTING: C# , C++, Unreal Blueprints

ENGINES/SOFTWARES: Unity, Unreal Engine, GitHub, JetBrains Rider

MANAGEMENT: P4V (Perforce), Plastic SCM, JIRA, Slack

DESIGN/SYSTEMS: AI Design & Programming, Tools Development, Rapid Prototyping, Multiplayer, Mobile Game Development, VR/AR Development

EDUCATION:

Quinnipiac University, Hamden, CT - BA in Game Design and Development

Udemy Course - Beginning C++ Programming - From Beginner to Beyond Course Completion Certification

GameDev.tv Course - Unreal 5 C++ Developer: Code Your Own Unreal Games Course Completion Certification