

KARIM WILLIAM

Gameplay Programmer | Unreal Engine 5 / C++

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PROFILE

Gameplay programmer with two years shipping multiplayer Unreal Engine 5 titles in C++. Experienced in server-authoritative combat and AI systems to networked backend and large-scale procedural world generation. Shipped Project Unknown at Psycho Ravens, and solo coded Crown's Trial, a souls-like boss rush now live on Steam, from inception to Early Access.

CORE SKILLS

Languages: C++, Python, JavaScript
Engine & Tools: Unreal Engine 5, Rider / Visual Studio, Perforce, Git, FMOD Studio
Systems: Networking & Replication, Gameplay Ability System (GAS), Procedural Generation (PCG), AI (EQS, Behavior Trees, custom frameworks), Animation State Machines

PROFESSIONAL EXPERIENCE

Psycho Ravens: Gameplay Programmer (Remote) Aug 2024 - Present
Unannounced Title (in development) Jun 2025 - Present

- Own server-authoritative multiplayer PvP combat with client-side prediction and hardened against cheating.
- Built predicted projectiles and a lag-compensating hit registration system so higher-ping players aren't put at a disadvantage.
- Contributed to procedural generation of large-scale maps with PCG, featuring heightmaps, biomes, points of interest, roads, resource nodes, and a mini-map.
- Designed a custom AI framework replacing Unreal's Behavior Trees, powering agents from wildlife to NPCs that use inventory and weapons, as well as rideable mounts.
- Mentor junior engineers on debugging and system architecture.

Project Unknown (Steam) Aug 2024 - Jun 2025 (Steam release: Oct 2025)

- Built GAS-driven character progression / skill trees and a persistent account data backend.
- Built a dynamic map events system, shipped Steam achievements, and contributed across AI, backend, and multiplayer systems as part of a small team.
- Designed an EQS-driven dynamic hide-and-seek AI that reads player paths and room layouts to pick hiding spots automatically, working across every level with no manual tuning.

PERSONAL PROJECTS

Crown's Trial: Duo Developer, Unreal Engine 5 (C++) Ongoing
Souls-like boss rush across historical eras; demo live on Steam, Early Access launch planned Nov 2026.

- Solely coded the entire game from inception, including combat, boss AI, UI, and a self-authored GAS-style ability system.
- Designed a fluid, responsive combat system and a designer-friendly pipeline for rapidly creating and iterating on new bosses.
- Localized the game into 10+ languages and integrated live analytics and bug tracking.
- Ran player beta testing and a demo launch with minimal reported issues.

ADDITIONAL EXPERIENCE

Freelance Full-Stack Developer Jan 2023 - Jul 2023
Built e-commerce and business page websites in React for small businesses.

Egyptian Armed Forces: First Lieutenant, Air Defense Systems Administrator Sep 2019 - Apr 2022
Maintained, patched, and troubleshooted a national air defense radar system and its database.

EDUCATION

The German University in Cairo: B.Sc. Computer Science Graduated May 2019
Cumulative Grade: Very Good • B.Sc. Thesis Grade: Excellent