

ALI KASSAB

Game Developer

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SUMMARY

Game Developer with experience shipping cross-platform titles on PS5, PS4, PC, Android, and iOS. Specialized in scalable gameplay architecture, multiplayer systems, AI behavior design, and performance optimization. Experienced working in Agile teams using Git-based workflows. Strong focus on clean architecture, modular systems, and long-term maintainability.

TECHNICAL SKILLS

Languages & Engines: C#, C++, Unity, SFML

Networking: Photon PUN, Photon Fusion, Unity Netcode

Systems & Architecture: OOP, Design Patterns, System Architecture, Multithreading, Async Programming

AI & Gameplay: Behavior Trees, FSM, Pathfinding (A*, BFS, DFS), Performance Optimization

Tools & Workflow: Git, Agile, CI/CD, Claude Code, GitHub Copilot

Platforms: PS5, PS4, PC, Android, iOS

PROFESSIONAL EXPERIENCE

Game Programmer | [Mega Cat Studios, Inc.](#) | Pittsburgh, PA November 2024 – Present

- Architected core systems for the [Pit of Agonies](#) mode in [God of War: Sons of Sparta](#): reward seeding, shop UI, progression, and legacy system rework.
- Developed modular NPC behavior systems using Behavior Trees and FSMs, supporting 10+ archetypes in [God of War: Sons of Sparta](#).
- Implemented gameplay feel systems (physics, camera, input, UI) and state-driven animation sequencing in [Backyard Baseball](#).
- Contributed to C++ porting pipelines for Android across 5 shipped [Backyard Sports](#) titles with performance and feature parity.
- Authored the input system for [Maximum Apocalypse](#), decoupling input and gameplay to reduce cross-system dependencies.
- Built and maintained the localization system for [Maximum Apocalypse](#), supporting multi-language pipelines and runtime string management.
- Built a YAML-driven balancing system enabling designer tuning without code changes in [God of War: Sons of Sparta](#).
- Refactored internal engine libraries (multithreading, async, physics, networking), improving stability and maintainability.

Unity Game Developer | [Genesis Creations S.A.E](#) | Cairo, Egypt August 2023 – July 2024

- Designed core game systems (error handling, UI, user access, command prompting) for published mobile title [Sinai Heroes](#).
- Built [VR hand pose tracking and object interaction](#) features, increasing player immersion by 40%.
- Integrated networking, multiplayer, and matchmaking with Photon PUN, reducing connection issues by 70%.
- Optimized environments and meshes, reducing draw calls by 75%.

PROJECTS

Table For None | Unity, C# | *Lead Programmer* | *Team of 3* *In Progress*

Multiplayer Detective Co-op

- Implemented multiplayer functionality using Unity Netcode.
- Designed core game systems and shipped a successful early development trailer.
- Developed customer AI using FSM and a flexible cooking actions system.

FakeOut BOSS | Unity, C# | *Lead Programmer* | *Team of 3*

February 2025

GDA JAM 1st Place | Stealth, Simulation, and Comedy

- Engineered an NPC awareness system detecting suspicious behavior via activity, movement, and reaction time, improving challenge adaptation by 35%.
- Integrated adaptive time dilation for precise decision-making during high-risk moments, improving reaction success by 50%.
- Built customizable pathfinding (BFS, DFS, A*) and a gaze system with randomized state transitions to increase replayability.
- Optimized task-balancing mechanics requiring players to manage in-game progress and workplace deception simultaneously.

Mystic Sands | Unity, C# | *Lead Programmer* | *Team of 4*

September 2024

ITI-BelMasry Tech Hackathon 1st Place | Narrative-Driven Adventure

- Expanded maze regeneration using Recursive Backtracking, improving generation efficiency by 40%.
- Integrated graph-based dialogue and quest systems, boosting player engagement by 50%.
- Created NPC AI with NavMesh pathfinding, increasing responsiveness by 50%.
- Structured modular UI using Command Design Pattern, reducing update time by 20%.

Dungeon of the Skeletons | SFML, C++ | *Developer* | *Team of 6*

May 2021

2D Platformer

- Implemented UI, input systems, player animation, and movement systems.
- Architected collision systems to handle jump states and prevent overlapping.
- Designed collectibles, progression, hazards, and enemies with patrol and turret behaviors.
- Managed scene and state transitions for menus, controls, and cutscenes.

EDUCATION

Bachelor of Computer and Information Sciences | Ain Shams University | Cairo, Egypt

October 2020 – July 2024

Bachelor of Science, Software Engineering | University of East London | London, UK | First Class Honours

October 2020 – July 2024

Graduated July 2024. Completed military exemption process July – November 2024 prior to joining Mega Cat Studios.