AKIRA MUJAWAR

ENGINE / PHYSICS PROGRAMMER (C++ / C#)

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Portfolio: https://www.akiramujawar.com

Engine-focused programmer with professional experience building game and simulation systems in C++. Specialises in engine architecture, physics simulation, and performance-critical systems, with hands-on experience designing and profiling multithreaded engine systems using Tracy.

PROJECTS

Meow Engine 3D

https://github.com/akiramujawar/MeowEngine

- Designed and implemented a custom multithreaded 3D engine in C++, focusing on clear system boundaries and low-level architecture.
- Integrated PhysX for rigid-body simulation, collision detection, and deterministic physics behaviour.
- Built an OpenGL-based rendering pipeline with platform-agnostic abstractions.
- Developed and maintained cross-platform builds targeting Windows, macOS, and Web.
- Instrumented engine systems using Tracy to analyse frame time, synchronisation costs, and thread contention, improving stability and performance across simulation and rendering.

CORE SKILLS

- C++, C#, JavaScript
- 3D Maths
- Unreal / Unity

- Multithreading / Concurrency
- Linear Algebra
- Client–Server Systems

- Performance Profiling (Tracy)
- Physics Simulations (PhysX)
- Game Engine Design Patterns

WORK EXPERIENCE

Glass Jar Interactive   Aug 2024 - Apr 2025
Gameplay & Tools Programmer (Consultant)   Bangalore, India

- Implemented custom editor tools for Spine2D animation state machines and in-scene lane and navigation authoring.
- Developed behaviour, schedule, and data-driven simulation editors for NPC and town systems.
- Optimised navigation and simulation performance via profiling and data-oriented design.

A5 Labs Inc.   Sep 2023 - Jun 2024
Game Developer III   (Remote), USA

- Extended extension library and runtime APIs to support new gameplay and system-level features.
- Optimised memory usage, load times, and build sizes across PC, iOS, and Android.

Juego Studios   Sep 2022 - Sep 2023
Senior Software Engineer   Bangalore, India

- Set up inverse kinematics, ragdoll physics, and cloth simulation using Unreal Engine physics systems.
- Created AI behaviour trees using EQS with performance considerations for open-world environments.

Hypernova Interactive   Jan 2020 - Aug 2022
Game Programmer   Bangalore, India

- Developed vehicle destruction systems using custom collision tests and physics-driven damage.
- Designed projectile and ballistic physics systems supporting multiple weapon types.
- Focused on robust collision handling and deterministic behaviour.

Indiawyn Gaming   Nov 2018 - Dec 2019
Game Developer / Team Manager   Mumbai, India

- Implemented deterministic lockstep networking for a prototype using Unity and Node.js.
- Planned and tracked weekly goals for the team while contributing to the core development.